

JOHNSTON



"Certainly! Buy a Johnston"

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FACTORY AND OFFICE
The Johnston Harvester Co.
Batavia, N. Y.



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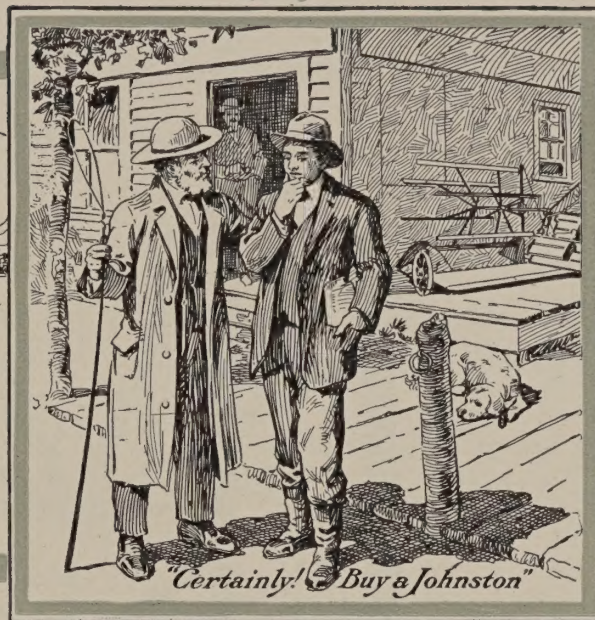
"Certainly! Buy a Johnston"

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JOHNSTON Farm Machinery



"Certainly! Buy a Johnston"



WHEN you buy Farm Machinery with which to equip your farm—machines and implements that will save you time and labor, better prepare your soil, better harvest your crops—you look for the Quality and Efficiency of the machines you want.

You are assured of Johnston Quality. Since 1871 harvesting machinery has been manufactured bearing the name Johnston. Time is the greater part of the test of Quality. An inferior product could never build up an ever increasing trade.

Johnston Efficiency is proven because it has enabled us to withstand all competition. The merit of Johnston machines has made it possible to maintain our independence. Quality and Efficiency work the Johnston Farm Machinery business on shares. They pull together to make satisfied customers. They divide equally the laurels.

Thousands of satisfied customers, on both continents, chorus to you, "Certainly! Buy a Johnston." The farmer who has experienced Johnston satisfaction is emphatic in his advice to you who know it not. You are now acquainting yourself with Farm Machinery that has been tried and proven under all conditions. The satisfaction it has given others it will give to you.

THE JOHNSTON HARVESTER COMPANY

Home Office and Factory : BATAVIA, N. Y. European Office : 148 Boulevard De La Villette, PARIS

AMERICAN BRANCH OFFICES

BATAVIA, N. Y.
ALBANY, N. Y.
HARRISBURG, PA.

RICHMOND, VA.
COLUMBUS, O.
LANSING, MICH.

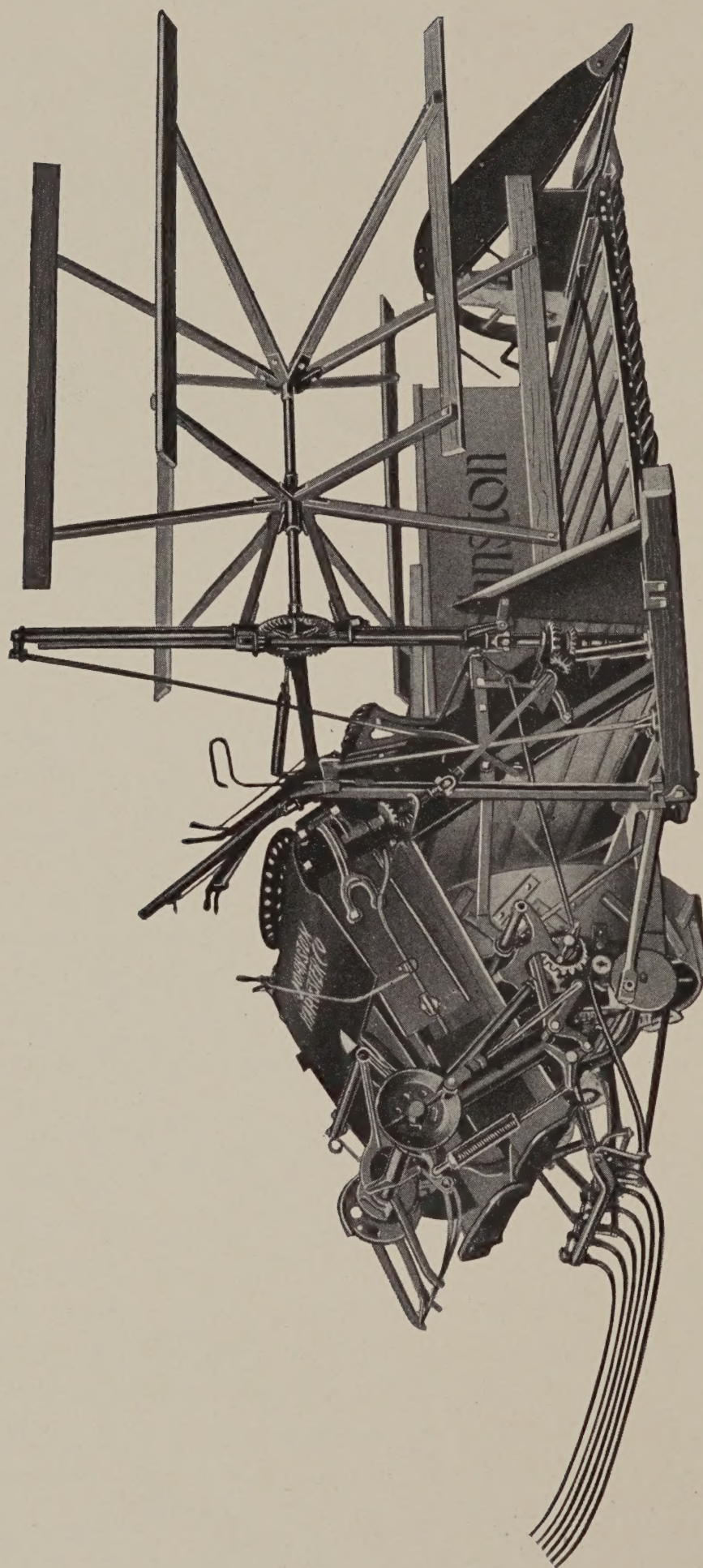
INDIANAPOLIS, IND.
ST. LOUIS, MO.
KANSAS CITY, MO.

"Certainly! Buy a Johnston"

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Johnston "Continental" Binder



Here is a Left Hand Binder that has given complete satisfaction. It is built to cut your grain in the most economical way—maximum efficiency in your field with the minimum of trouble and repair cost. Built in several sizes.

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Johnston "Continental" Binder



OUR first glance at a Grain Binder gives you either a good or bad impression. If you are favorably impressed the remaining details prove interesting to you. If not, it will take considerable argument to prove to you the merits of certain features.

In the Johnston Binder we have aimed to meet these conditions. It is a binder that will give nine out of every ten farmers a most favorable first impression. But for that tenth farmer we have arguments to conclusively prove the features which make the Johnston superior to all other Binders.

Main Frame and Wheel

We begin by building a strong foundation. The main frame is steel, in one piece, and well braced. To this is securely attached all necessary gearing and shafting, making its construction compact and simple. The shafting, fitted with roller bearings, is always in line and gearings are in perfect mesh.

The main or master wheel is large and ten inches in width. It is of the suspension pattern. The spokes are

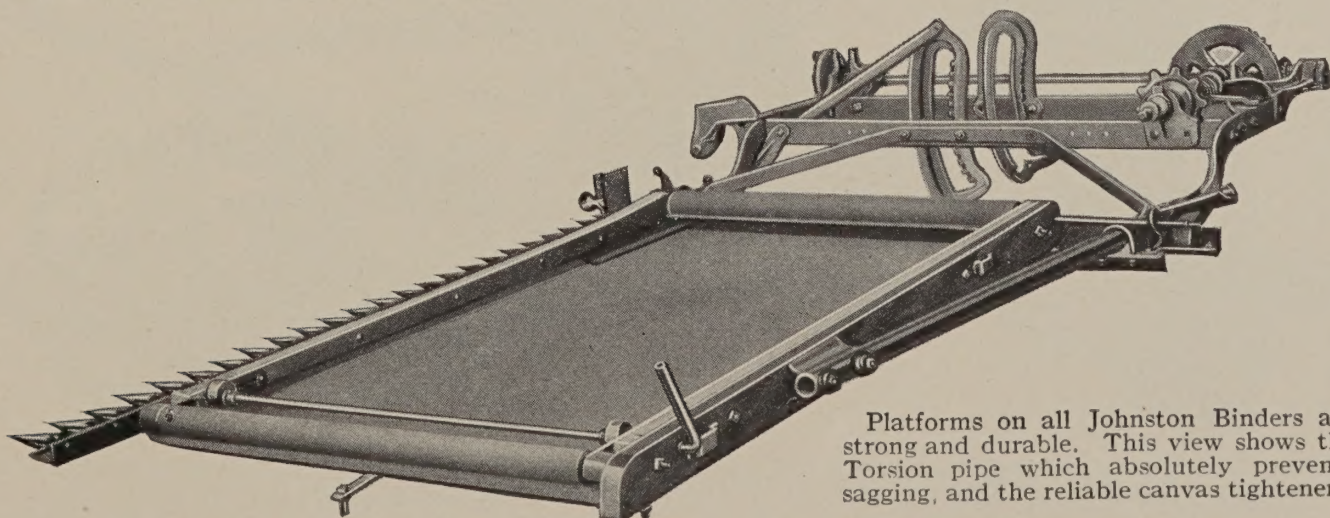
strengthened and held by angle steel calks. These are placed diagonally to the edge of the rim but at right angles to each other. This feature gives the greatest traction on all kinds of soil as well as keeps the wheel running true.

The hub is fitted with steel roller bearings, made dust proof by a series of steel and flange washers. A Locke Steel Belt chain is used for driving power. It is strong, has the right pitch and works freely.

The drive wheel end of the binder is easily raised or lowered by gear, worm and shaft. This is well shielded and works smoothly.

The Platform and Elevators

The advantage of having a one-piece steel platform is apparent—its strength and durability is the greatest possible. The Johnston Binder platform is supported on the under side by steel angle ribs. In addition to this a steel torsion pipe braces the rear and makes sagging impossible. This method of supporting the platform is far superior to the common custom of bracing from one corner to another.



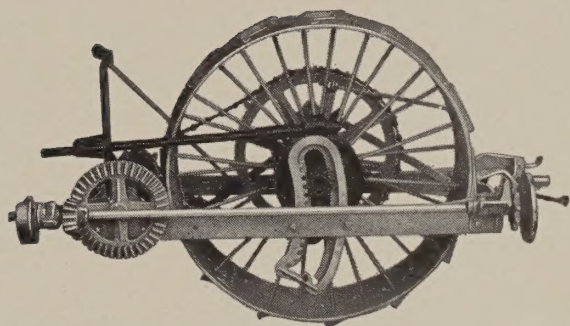
Platforms on all Johnston Binders are strong and durable. This view shows the Torsion pipe which absolutely prevents sagging, and the reliable canvas tighteners.

"Certainly! Buy a Johnston"

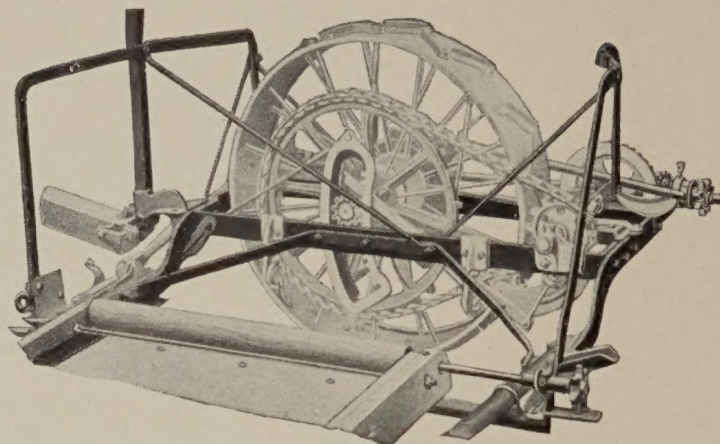
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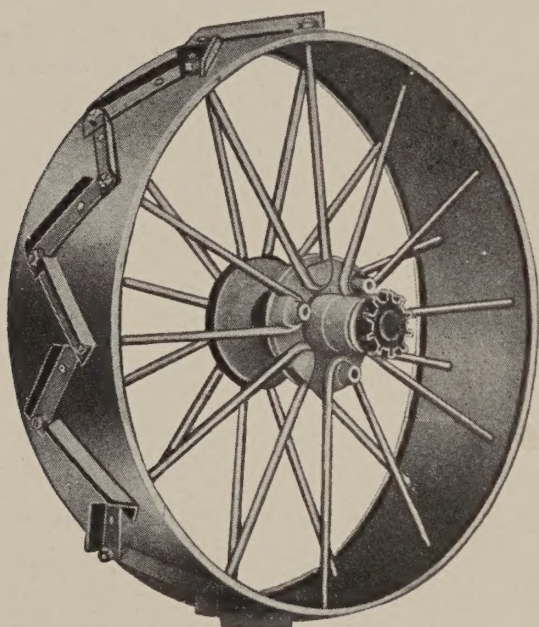
Johnston "Continental" Binder



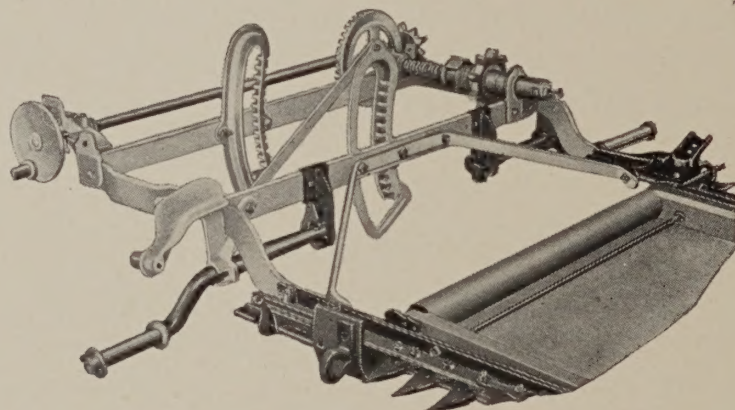
Side view of the main frame of the Left Hand Binder.



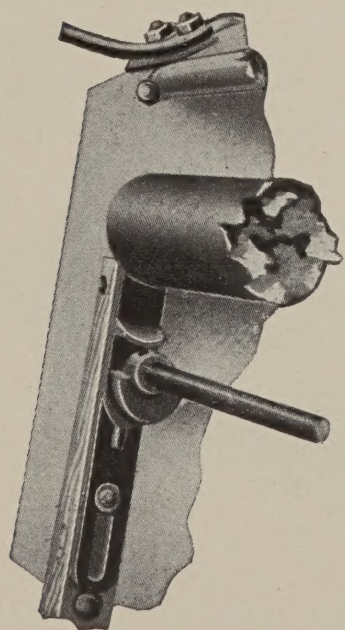
Main frame with elevator frames attached.



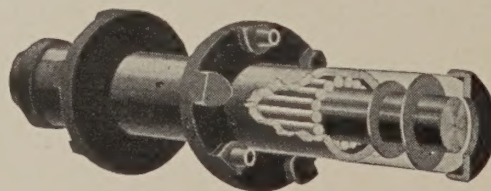
The main or master wheel, 10 inches wide.
Note the position of the calks.



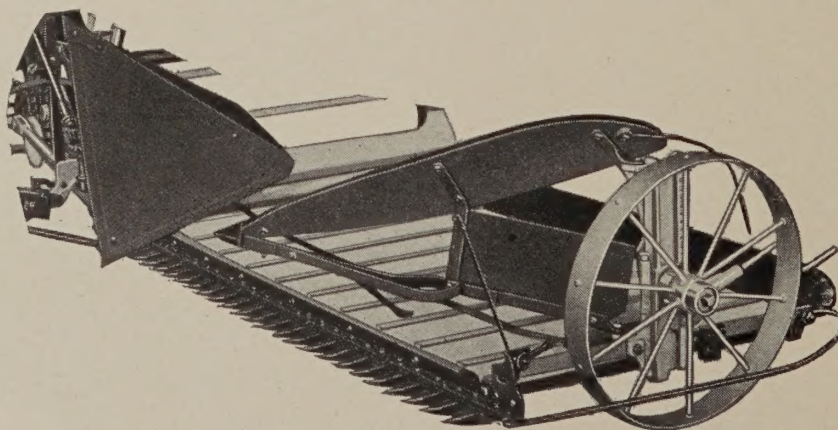
Showing the front truck axle bearing and fastening.



View of elevator canvas tightener showing absence of springs.



Johnston Binders are equipped with durable roller bearings.



Showing grain wheel and both inside and outside dividers folded out of the way.

Johnston "Continental" Binder



ACH platform is fitted with an adjustable retarder. This new feature is to be used in medium or short grain where the heads are so much heavier than the straw. Trouble has always been experienced in all binders because the heads of this short grain would elevate faster than the straw. The retarder holds them back and insures a perfectly formed bundle.

The elevators are just high enough to give sufficient clearance to the wheel. The elevator frames are securely braced and there is no possibility of the upper elevator sagging and giving trouble.

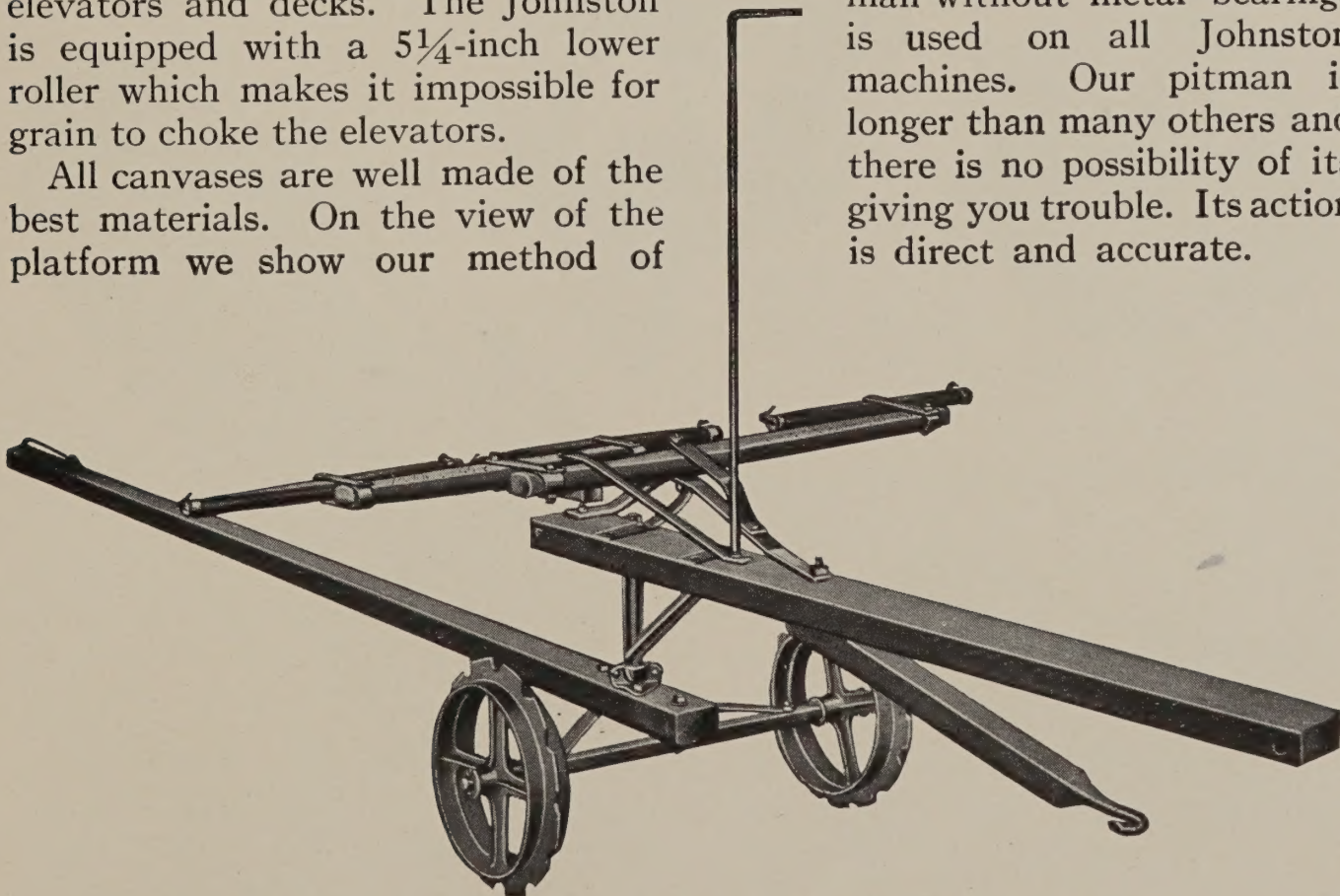
We have long used the seventh roller which we so place that it prevents all grain from falling between elevators and decks. The Johnston is equipped with a 5 $\frac{1}{4}$ -inch lower roller which makes it impossible for grain to choke the elevators.

All canvases are well made of the best materials. On the view of the platform we show our method of

tightening and releasing the platform canvas. These canvas tighteners are operated by an eccentric lever on the outside and have proven the best and simplest method of regulating this necessary adjustment. They insure an even tightening. There is no possibility of one side being loose and the other tight as is often the case where springs are used. There are no springs, no cotters to cause you trouble. This same method is used on the elevator canvases.

Cutting Bar and Pitman

We use a steel angle cutting bar and guards fitted with steel plates. The guards are set flush with the bottom of the platform which permits very close cutting. We make our own knives. A wood pitman without metal bearings is used on all Johnston machines. Our pitman is longer than many others and there is no possibility of its giving you trouble. Its action is direct and accurate.



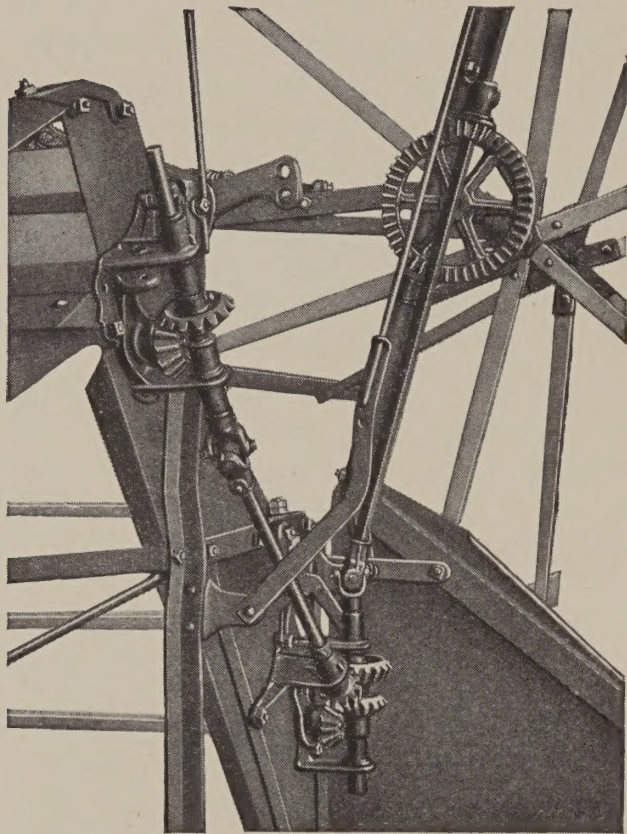
View of tongue truck which is easily and quickly attached to all Johnston Binders.

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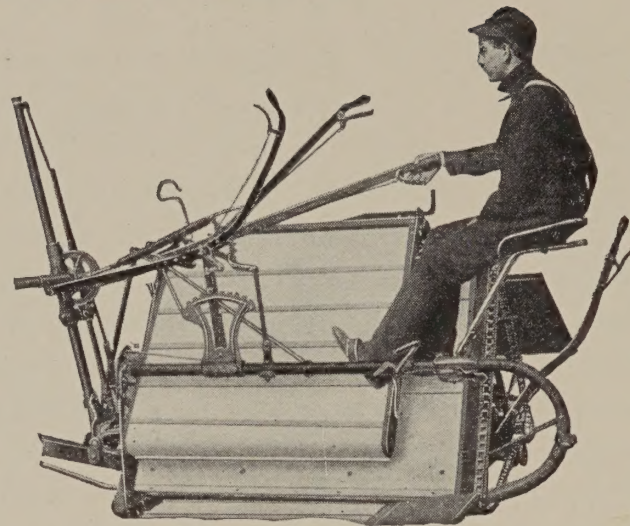
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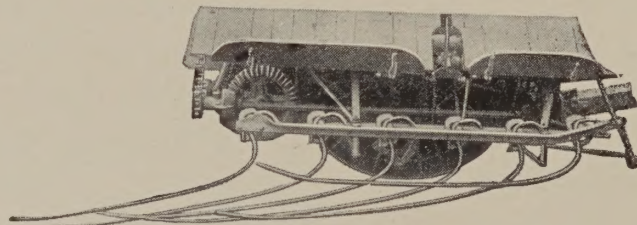
Johnston "Continental" Binder



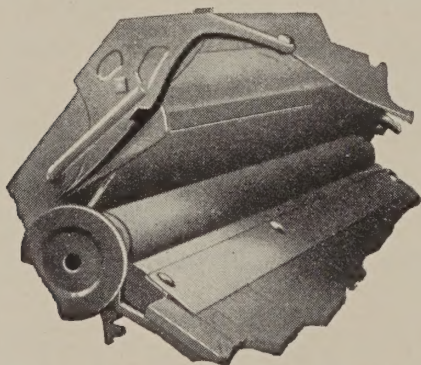
Lower portion of the 51-inch reel standard. Also the gearing.



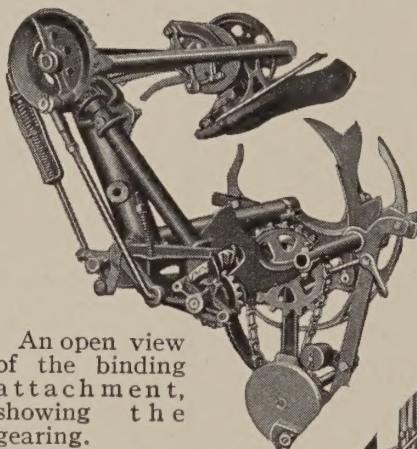
The elevators and convenient levers. The large roller at the bottom of upper elevator prevents choking.



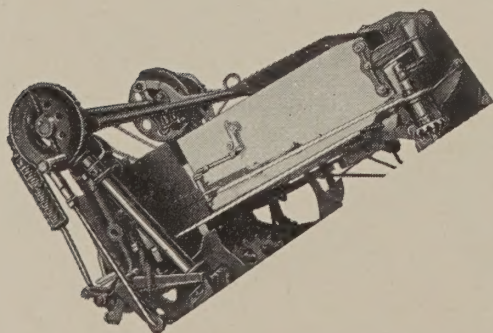
The bundle carrier folded.



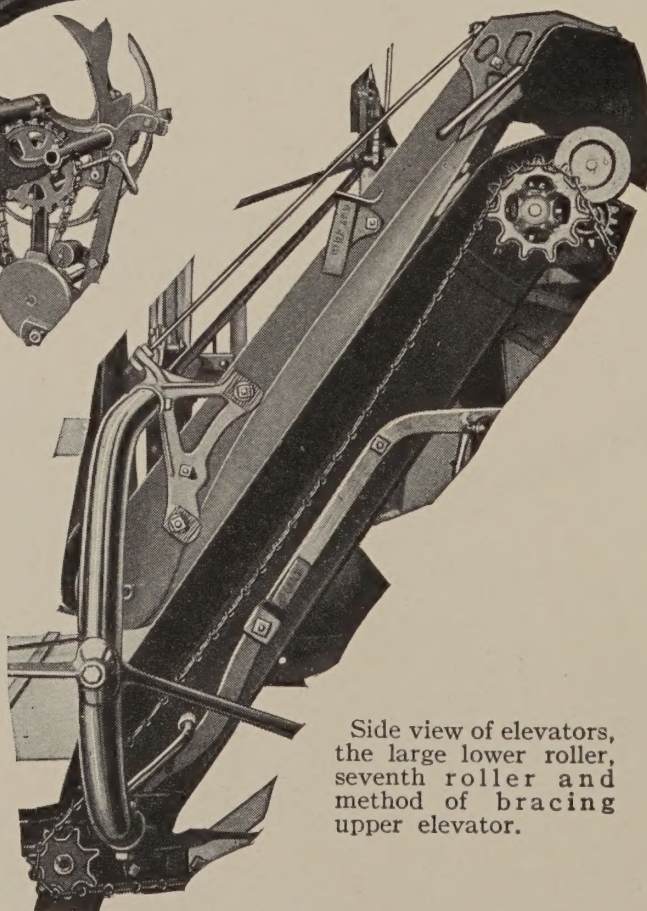
View of the seventh roller which prevents grain falling between elevator and deck.



An open view of the binding attachment, showing the gearing.



The new butter, showing the extension and connection of link movement.



Side view of elevators, the large lower roller, seventh roller and method of bracing upper elevator.

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Johnston "Continental" Binder

THE Johnston reel is gear-driven. It is strongly supported. The standard bracket slides on small rollers, which insure the easy raising or lowering of the reel without binding. Our standard is fifty-one inches high, is steel trussed and can be adjusted so as to keep the beaters, six in number, level and parallel with the platform. Another feature is the jointing of the standard which permits it to swing out and back very easily. The reel drive rod is of the ball and socket construction and follows the standard with perfect freedom.

Every lever is within easy reach, a feature which not only permits the quick adjustment of the reel for tall, short or medium grain, standing or down, but gives the operator absolute control of his machine. Illustrations show the reel set for both tall and short grain.

Binding Attachment

The tying mechanism of a binder is the most important feature. No

matter how well the rest of your binder is built, if it fails to tie the bundles regularly, it falls short of performing its functions and causes no end of trouble.

The Johnston Binder attachment is driven by gear. The construction is simple. Its one-piece frame makes a perfect bearing for the shafting and gearing used in making the bundle.

Three views are shown which will give you an idea as to the Johnston method of tying the bundle. It is sure. Also study the view of the double twine-holder and disc. Each cog in this disc means a bundle tied. We make a very thorough test of every knotter before it leaves the factory and are certain it will work properly when in the field.

We use a spring-trip binder-lock that always works. The trip never repeats, when properly adjusted, or causes the making of small bundles. The trip and compressor springs are adjusted independently.

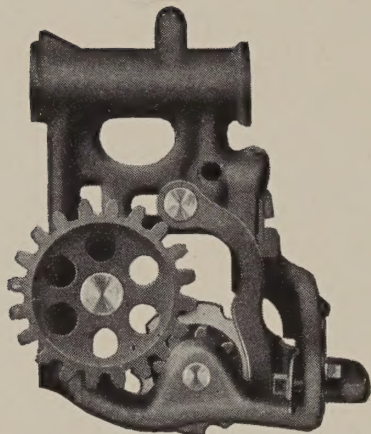


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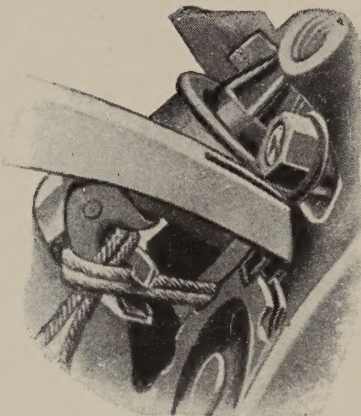
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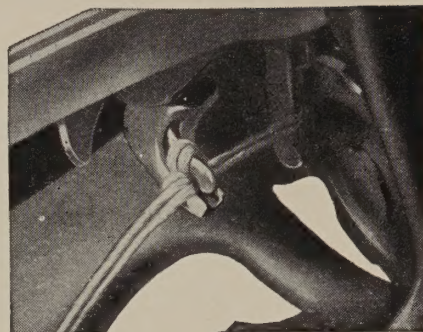
Johnston "Continental" Binder



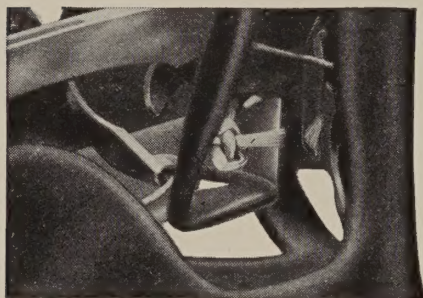
Double Twine-holder and Disc.



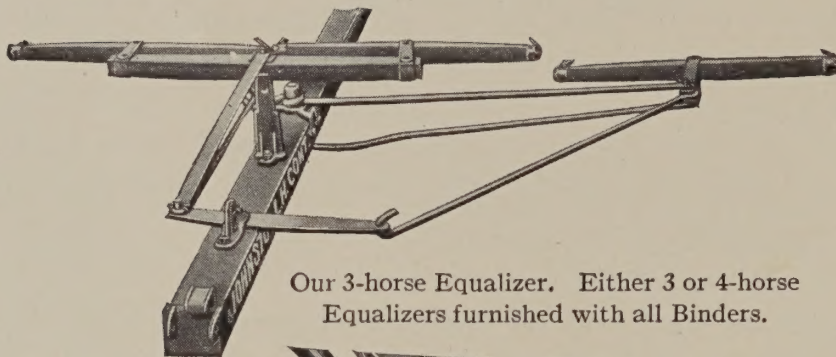
Knot being tied.



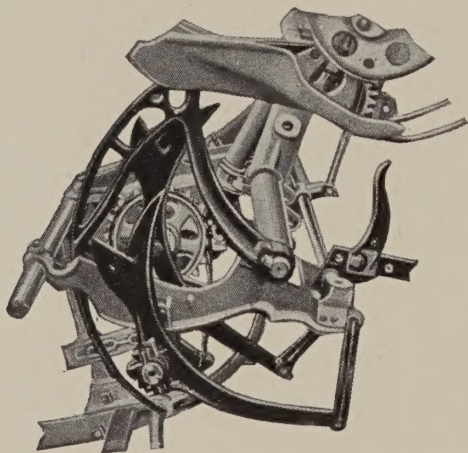
Knot tied and ready to be cut.



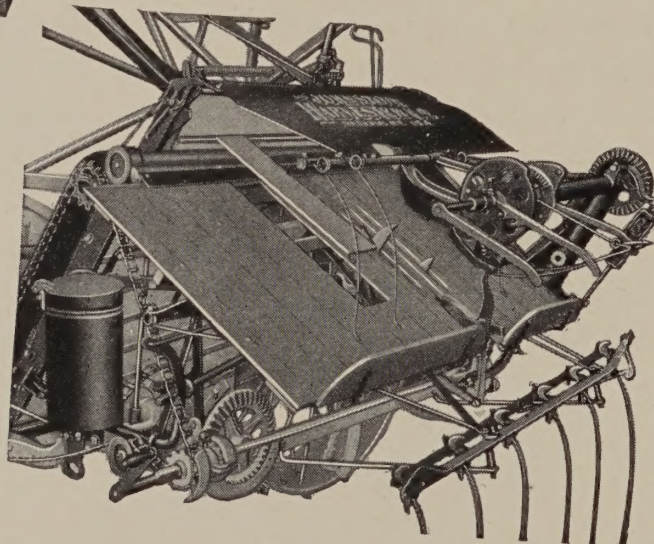
Last operation in the tying of the knot.
View shows Knife Arm Cam and Twine cut



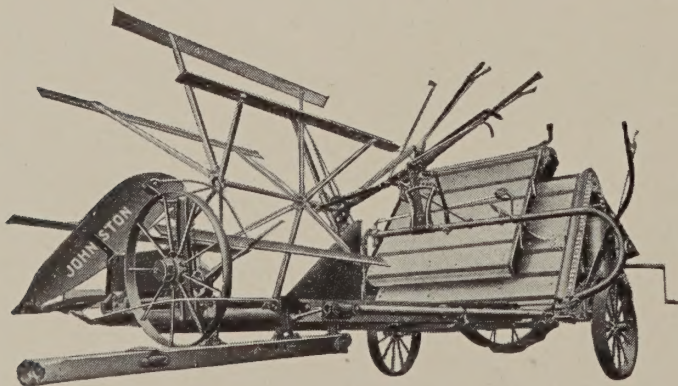
Our 3-horse Equalizer. Either 3 or 4-horse
Equalizers furnished with all Binders.



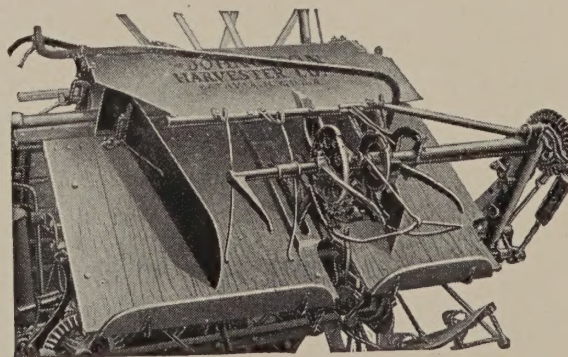
Johnston Packers do the heavy work.



For very long grain End Board Piece is removed. View also
shows panel removed to permit easy oiling of Binder parts.



Binder transported.



Showing extent of adjustment for very short grain.

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Johnston "Continental" Binder

THE packers, keeping just ahead of the needle, are always in perfect time with it. Packers and packer crank run in detachable boxes. Each machine is equipped with a third discharge arm. It can easily be adjusted to work ahead of the others so as to part the heads in heavy, tangled grain.

The Johnston butter not only keeps the butts of the grain even, but is fitted with a sheet steel extension which keeps the butts even while the bundle is being tied. It has a link movement which permits a more positive action on the butts of the grain than was secured with the old sliding movement.

The distance from the butts at which you desire to have the bundle tied is easily adjusted by shifting the binder deck. You can bind long grain twenty-four inches from the butts, and short grain eight inches from the butts. The Johnston binding attachment fulfills the greatest

function of a grain binder. It works perfectly and gives you no trouble.

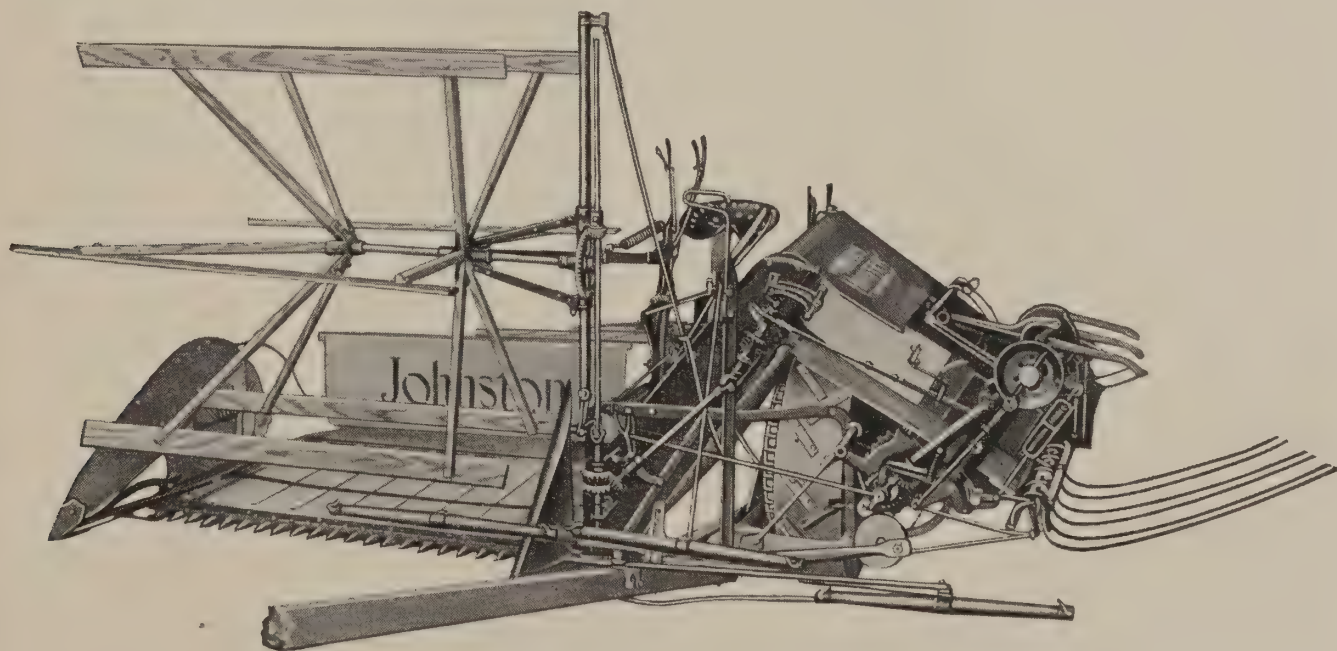
Bundle Carrier and Transport Truck

The bundle carrier is of steel and folds back completely out of the way. It has six fingers and can either be held in position for receiving the bundle or tripped by the driver's foot.

The Johnston transport truck is of the steel axle kind. The binder can be mounted in five minutes. The view we show gives you a very good idea of this truck. It is simple and strong in construction.

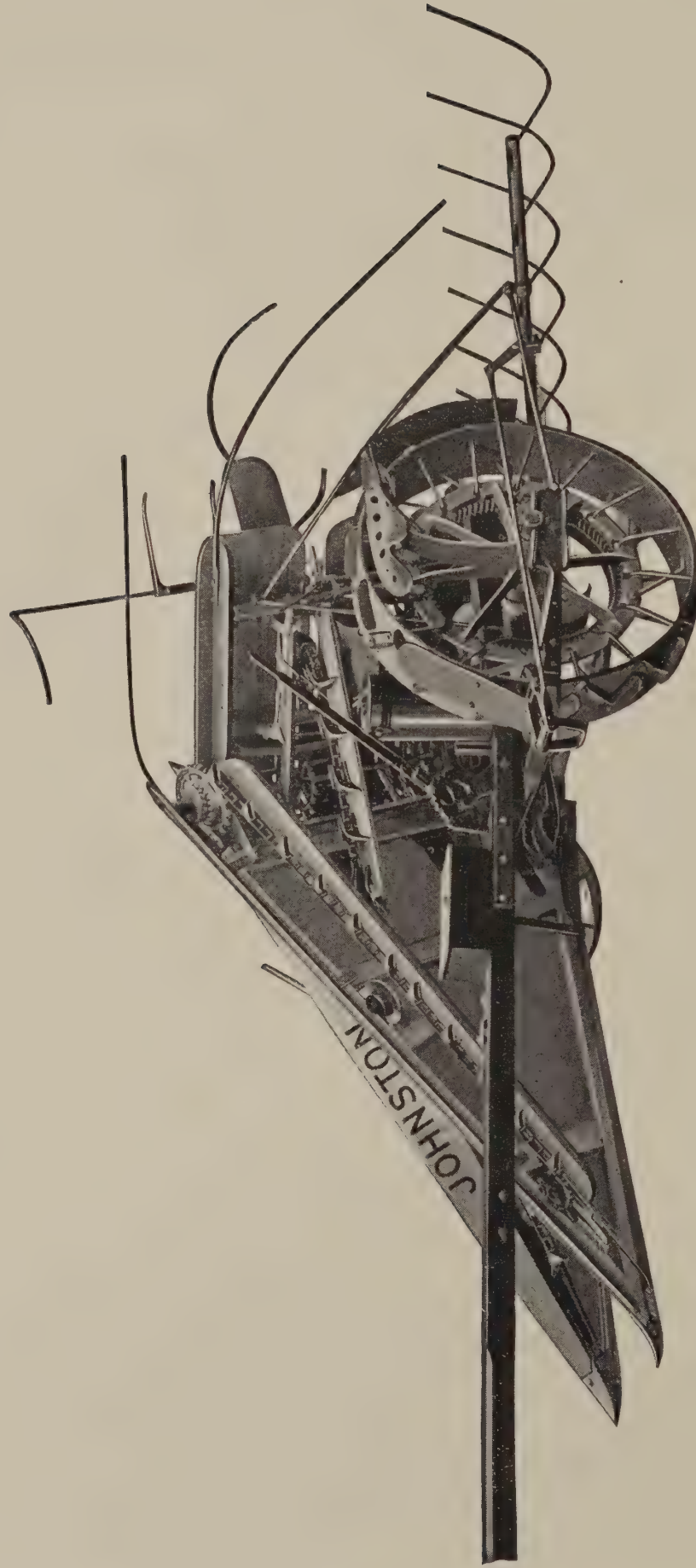
Our steel three-horse rig is lighter, yet will wear longer and work better than the old style. We furnish a four-horse equipment with our eight-foot binder.

Johnston binders are made in both right and left-hand 5-foot, 6-foot and 7-foot cuts. Also our left-hand binder is made in an 8-foot cut. They are built to meet your requirements.



A binder made to meet the demands of some farmers who prefer a right hand cut.

Johnston Corn Binder



The Johnston Corn Binder has been put to very severe tests. It has been put into fields where several other Binders have failed and has given entire satisfaction. What it can do is the best proof of its efficiency.

Johnston Corn Binder



WHEN we say that the Johnston Corn Binder is without a peer, we say it not only because we believe it, but because thousands of satisfied farmers testify to its merited superiority over all other Corn Binders. It has many features which help to make this statement true.

The one-piece main frame is of steel and is exceptionally wide. The pole is attached inside the main wheel. This you will find only on the Johnston. The weight is evenly divided between the wheel and operator on one side and the elevator and gears on the other. The binder attachment is therefore in direct line of draft. The machine is always perfectly balanced and has absolutely no side draft. There is no danger of the machine tipping on side hills.

A forty-inch drive wheel of the suspension pattern is used. Angle steel calks are placed at right angles the same as on the main wheel of the grain binder. Dust-proof roller bearings on the hub reduce wear and draft.

The cutting apparatus consists of two stationary knives, and a sliding knife which cuts the same as a sickle. The method of cutting is very similar to that of cutting the corn by hand with a sickle. The stalks are cut at just the moment when bent and held in the taut position as when cut by hand. This feature of the cutting apparatus enables the Johnston to cut large, tough corn as easily as short and tender corn. No clogging or complex cutting attachments to give you trouble.

The gathering chains with stationary fingers pick up the row knocked down in opening the field. They also handle tangled corn perfectly.

Every Johnston Corn Binder is equipped with another exclusive feature—what are known as automatic gates. The corn is carried to the binding attachment by conveyor chains with folding fingers. Just before the needle passes around the bundle, these automatic gates release the fingers which pass on as the machine moves, and resume their natural position again. The folding of these fingers prevents the crowding of the incoming corn. This feature does away with all packers, and entirely does away with the knocking off of the ears. The Johnston knocks off eighty per cent. less ears than any other binder.

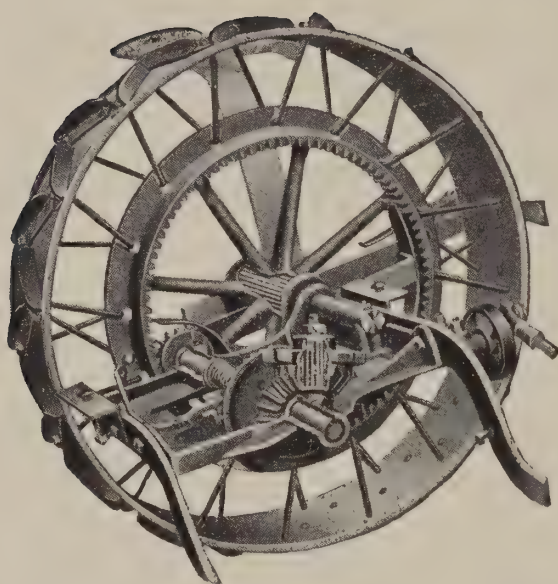
The binder attachment can be adjusted to bind from eighteen inches to thirty-two inches from the butts. Can bind above or below the ears. For very short corn, the binder frame extension is removed and needle and knotter lowered. The stalk channel has a six-inch adjustment.

Every lever is within easy reach of the operator. The steel carrier takes five bundles and trips from the seat.

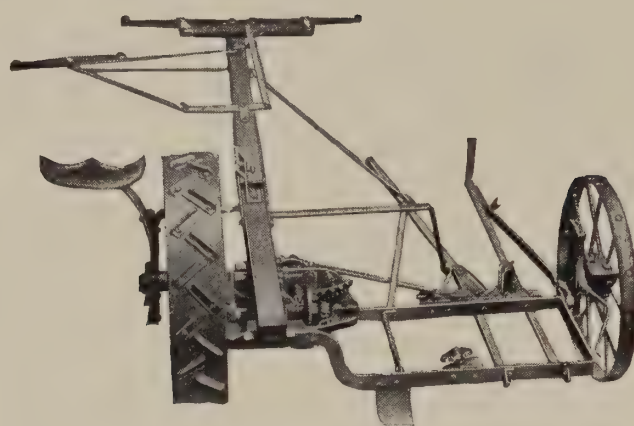
The machine is five feet, eleven inches wide, and will easily pass through any ordinary farm gateway.

We make an attachment for very tall corn, which is furnished when ordered with the machine. By using this attachment the very tallest corn can be handled with ease.

Johnston Corn Binder



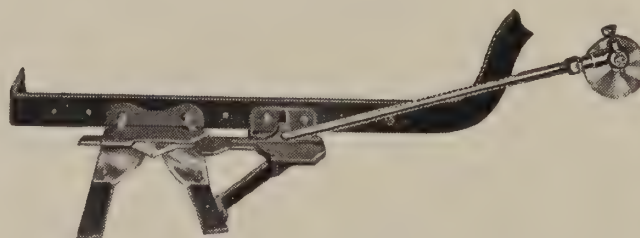
Forty-inch Wheel, Suspension Gear, Roller and Brass Bush Bearings.



Showing Frame, large Main Wheel, location of Pole and Seat.



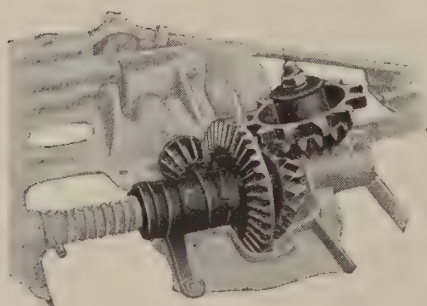
The Conveyor Fingers.



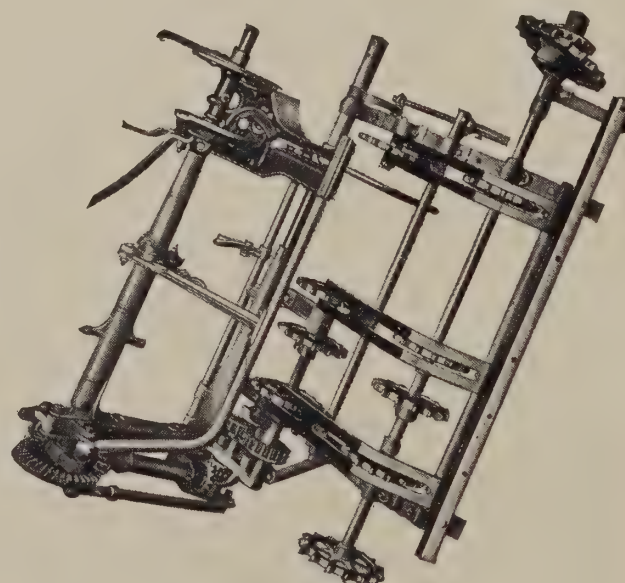
Showing the Sickle and Knife Cutting Apparatus. Also long Steel Pitman.



Self-aligning Idler Sprocket Box.

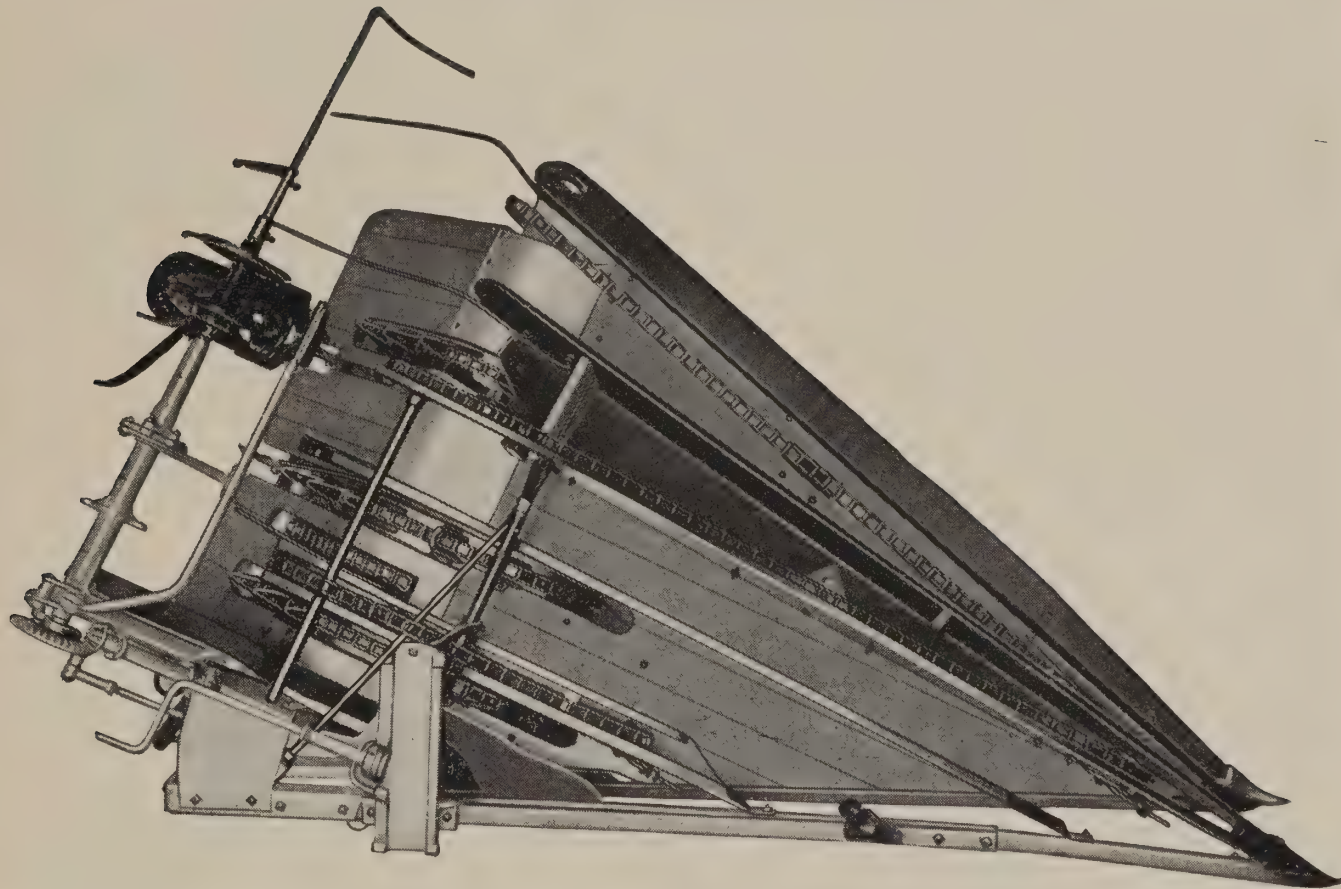


Perfect mesh of Main Driving Gears.



The Automatic Gates which do away with all Packers. Set for tall corn.

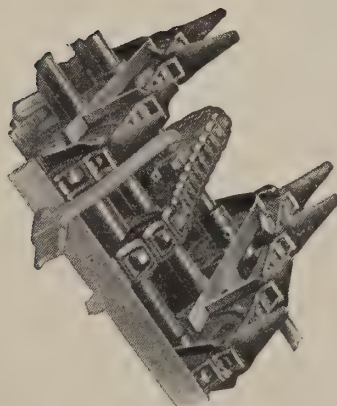
Johnston Corn Binder



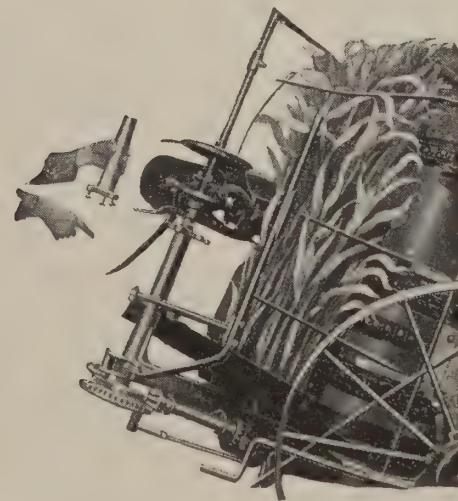
Side view of Corn Binder with Grain Wheel removed to show the Gear, Worm and Shaft method of raising or lowering the machine to adjust the height of stubble. Also shows Conveyor Chains.



Binder Attachment showing high adjustment for tall corn.



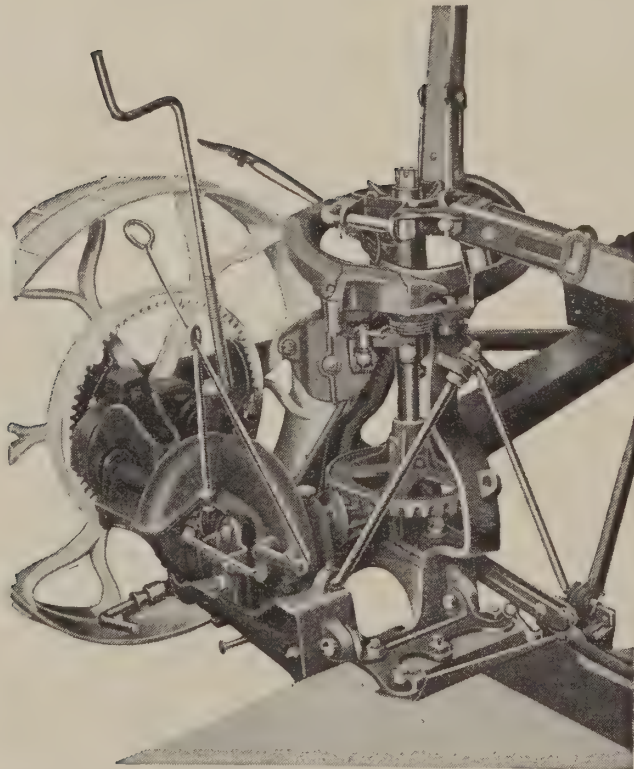
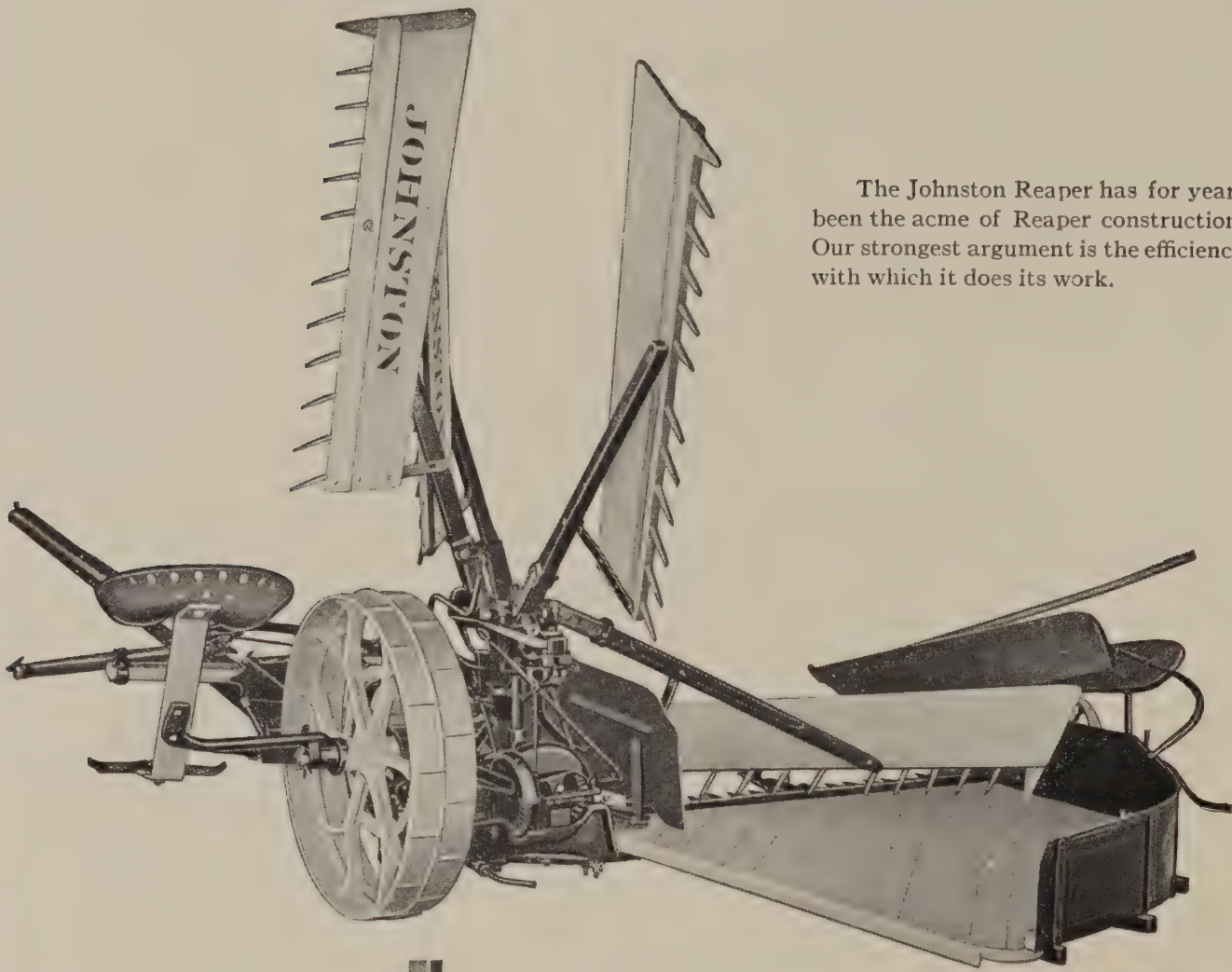
Showing position of conveyor fingers while bundle is being tied.



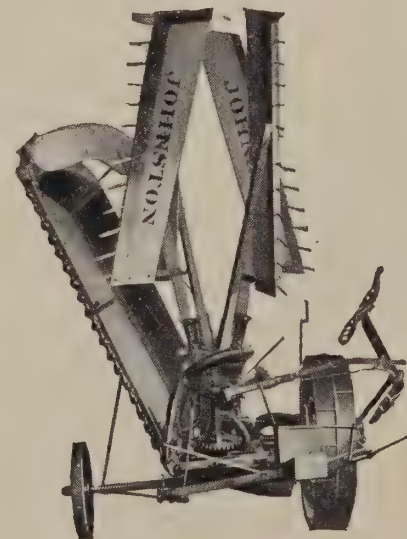
Showing how very short corn is handled with equal ease.

Johnston "Continental" Reaper

The Johnston Reaper has for years been the acme of Reaper construction. Our strongest argument is the efficiency with which it does its work.



Suspension Bar ; Tilting Lever ; Bevel Gear and Spur Gear ; Automatic Trip ; Clutch Shifter ; Platform Support Plunger Crank.



Reaper folded ready to transport.

Johnston "Continental" Reaper

IF you desire to harvest your grain so as to leave it in gavels or bunches unbound, you will find that the Johnston Continental Reaper will do this to your entire satisfaction.

Here is a Reaper that has been on the market for over 35 years and has been changed only as improvements have developed. At each stage of Reaper history the Johnston has headed the list. It stands without a rival today.

The main frame is strong and rigid. This makes a perfect support for bearings, gearing and the platform. The boxes are separate from the frame, but securely fastened to it. Gearing is always in perfect mesh. All gears are shielded to keep out the dirt and straw.

The main drive wheel is of cast iron with wide rim and sufficiently deep lugs to aid traction and prevent slipping in loose or sandy soil. This wheel is also fitted with dust-proof roller bearings.

The platform is raised or lowered at either end by gear, worm and shaft. It is braced by steel trusses

which absolutely prevent sagging. Steel pipe supports the platform and also serves as an axle for grain wheel when platform is folded for transportation.

The rake standard is high and perfectly shielded. The rakes are parallel with the finger bar its entire length, and thus discharge the gavel squarely, in best condition for binding. The rake blades are solid, which prevents the straw winding about them.

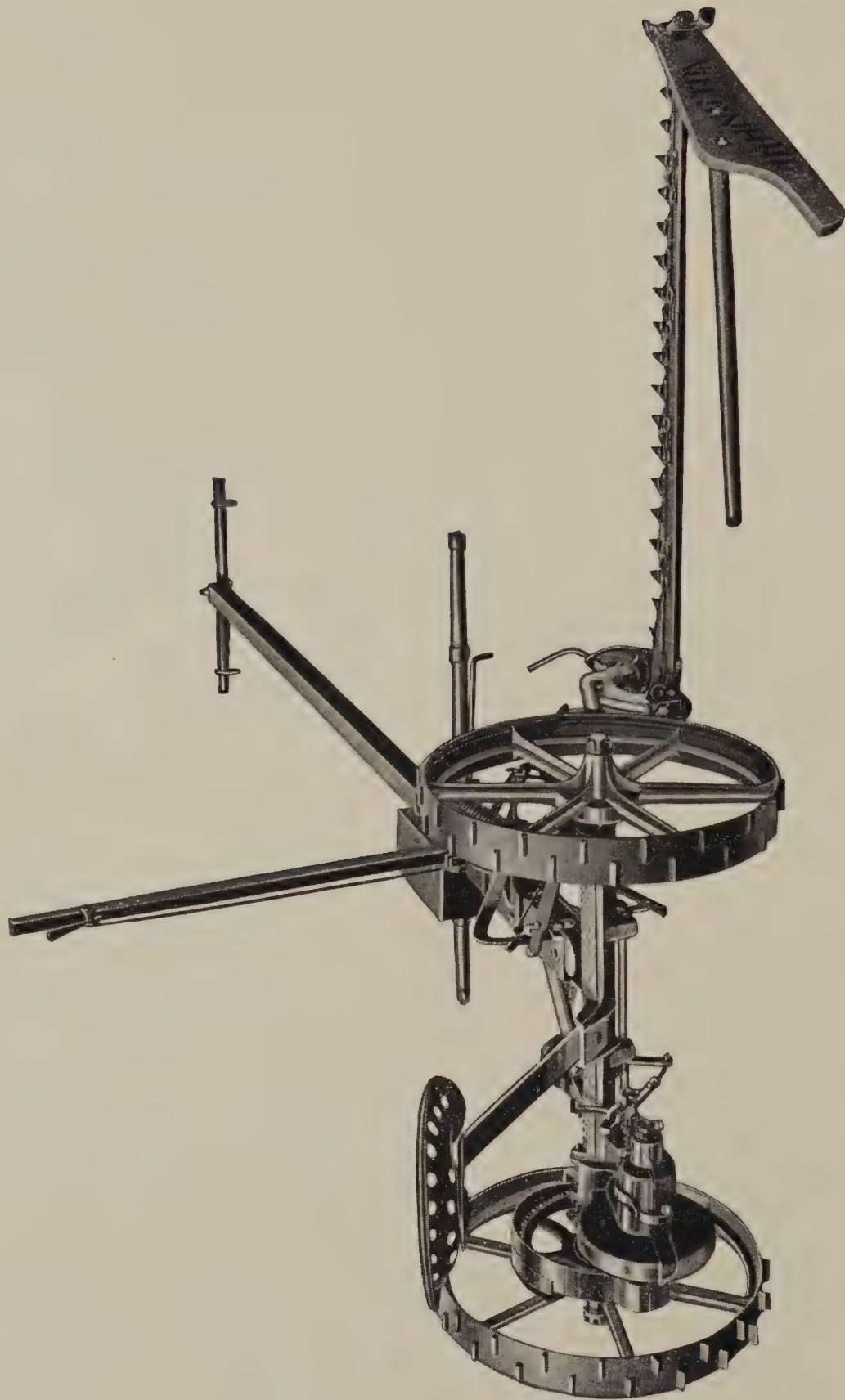
The cam is adjustable for long or short grain, and with our automatic (or AA) trip the operator can set to rake off every second, third, fourth, fifth or sixth rake. This is a very important and convenient feature, especially where a certain size gavel is desired in light or heavy grain. By the same trip you can also prevent the delivery of a gavel at any time in turning corners. Each machine is furnished with a swathing switch when a continuous swathe is desired.

All levers are within easy and convenient reach of the operator. The machine is under perfect control at all times.

The Johnston is simple to operate and always does good, clean work.



Johnston No. 12 Mower



A Mower that is built light, yet has the very necessary quality of strength and durability, is the one that will give you the best service.
The No. 12 has stood severe tests and has proven its efficiency.

Johnston No. 12 Mower

TO make a perfect cutting mower it is necessary to build it light, yet strong. It must be built of good materials or what is gained in lightness and simplicity of construction will be lost in your dissatisfaction caused by breakage and other trouble.

Johnston mowers are built with all this knowledge at hand. The No. 12 is the lightest mower we have ever built, yet the success it has met and the satisfaction it has given is ample proof that a light mower of simple construction can be made to give years of satisfactory service.

The main frame is of first importance. It is of the bridged type, in one piece. It is much lighter but

because of its bracing is very strong. There is absolutely no jar or vibration.

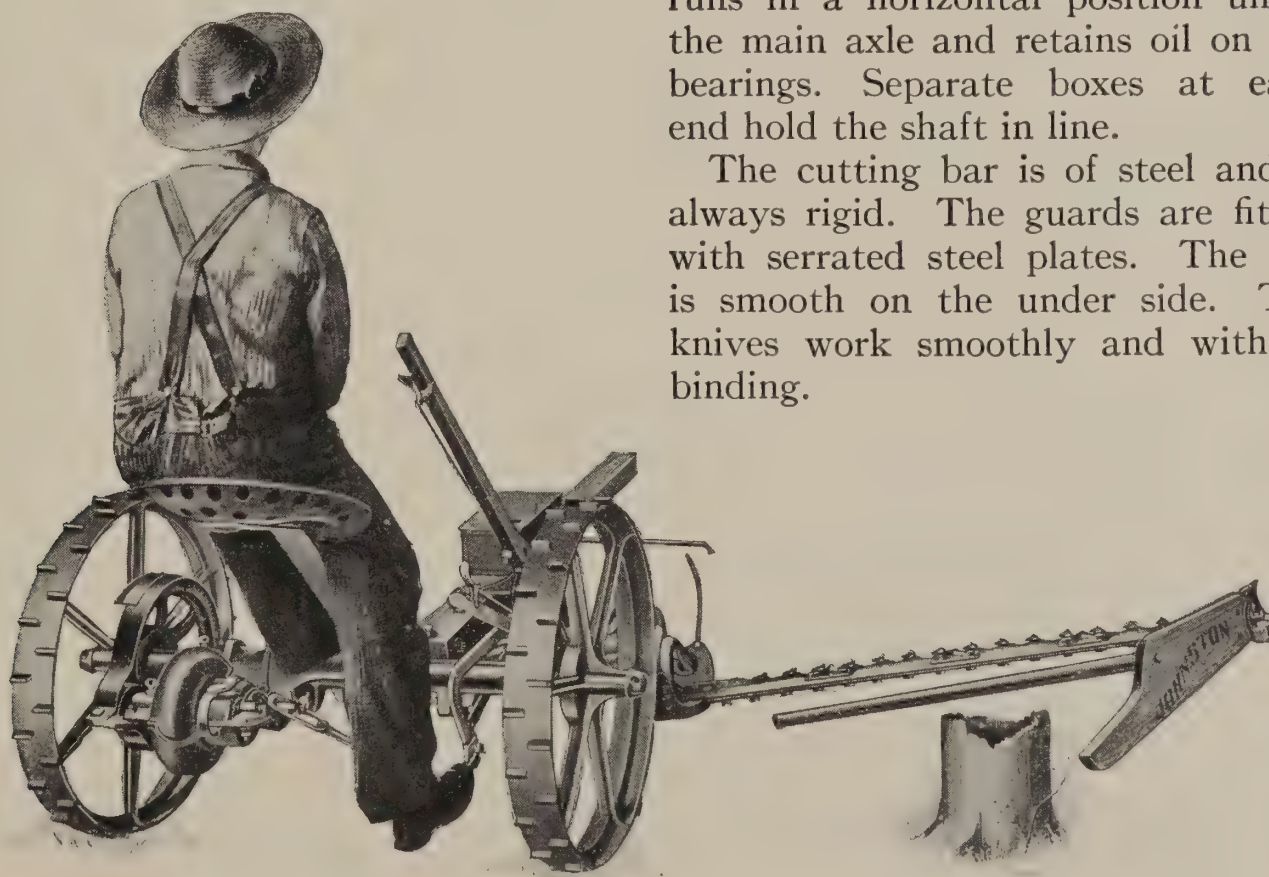
Steel, dust-proof roller bearings are used in axle and bevel gear shaft.

The pitman is of extra length and its motion is direct and easy. We show a view of these connections, which are malleable, together with wrist pin and box. This wrist pin is case hardened and polished. It is as smooth as glass. In the center is a hard oil chamber which reduces to the minimum the possibilities of its heating and causing trouble. There is absolutely no wear on the wrist pin.

A large gear and a small pinion that mesh perfectly are used. The pinion is easily removed and the gearing is well shielded.

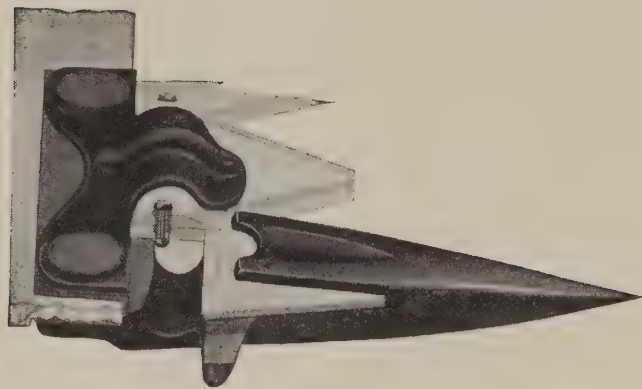
The crank shaft, of special steel, runs in a horizontal position under the main axle and retains oil on the bearings. Separate boxes at each end hold the shaft in line.

The cutting bar is of steel and is always rigid. The guards are fitted with serrated steel plates. The bar is smooth on the under side. The knives work smoothly and without binding.



The use of a convenient Foot Lever permits the clearing of field obstructions. This is a view of the No. 10 Mower.

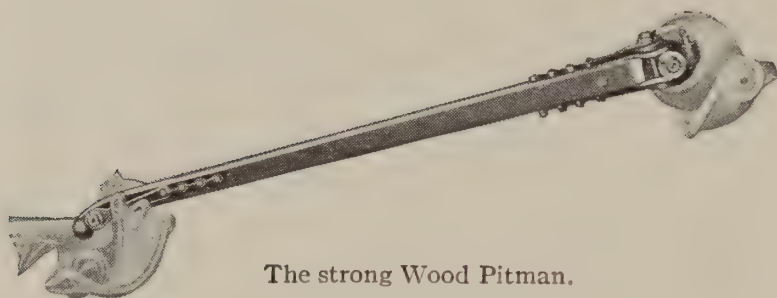
Johnston No. 12 Mower



Guard, Wear Plate and Serrated Plate.



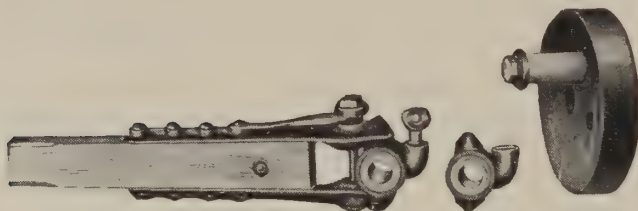
The Gag Lever Connections.



The strong Wood Pitman.



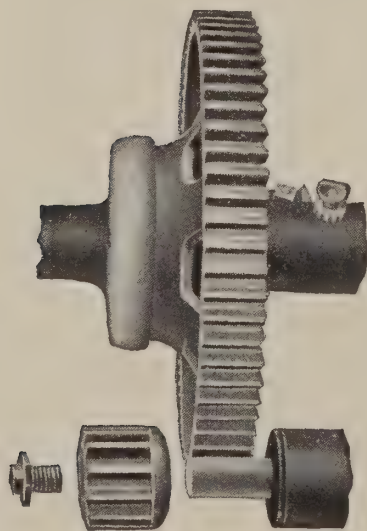
The three Pawls which insure a positive motion.



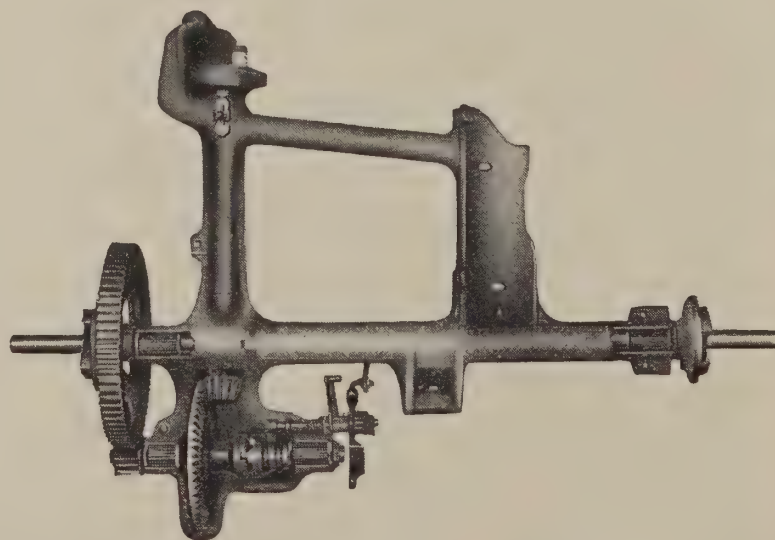
New Wrist Pin and Pitman Connections.



Ratchet Nut.



The Gearing.



The strong, one-piece Main Frame of the bridged type. Also shows the Automatic Throw-out and Roller Bearings.

Johnston No. 12 Mower



THE steel push-bar is in one piece, works free in the joint casting, and is attached to the frame in parallel points, so that there is no binding when the bar is raised. The connecting bar joint is wide and attached to the inner shoe by steel pins at two points.

Each wheel has three pawls, which insure even and accurate motion as soon as the wheels start.

The pole is placed directly in line from the push-bar which makes the machine one of even draft. The gearing being placed in the rear of the main axle gives you a perfectly balanced machine and one of light draft.

The lever-fold feature is becoming more and more popular throughout the country. All Johnston Mowers, except the No. 11, may now be had either in the plain or lever-fold pattern. The plain fold is sold only when so ordered.

A foot lever enables the operator to easily raise the cutting bar sufficiently to clear stumps or other field

obstructions. If desired, the bar can be raised to a vertical position by the use of a lever within easy reach of the driver. The bar is then held there rigidly, but is easily and quickly lowered to the ground without jerking or jarring.

The cutter bar is always thrown out of gear when at an angle of about thirty degrees, thereby eliminating all possibility of straining or binding the knives. The use of a gag gear on all Johnston Lever-Fold Mowers, permits the cutting bar to always hug the ground.

We have returned to the practice of proving each machine with cutter bar and pitman attached. This takes considerable time and costs money but the more perfect alignment of pitman and cutter bar secures an advantage which, when known, must be appreciated by both the farmer and the trade.

The Johnston No. 12 Mower can be had in 4½-foot or 5-foot cuts. It is a machine adapted to use on any farm or kind of soil.

Johnston No. 10 Mower

As its number indicates its manufacture preceded that of the other mowers shown in this catalog. Farmers in certain sections of the country think the No. 10 is better adapted to their needs.

The Main Frame differs from that of the No. 12, being in two pieces and not of the bridged type. It is built very strong and durable. The truck is narrow, the wheels high and broad-faced with lugs that make traction easy.

The equipment on the No. 10 is essentially the same as on other mowers, differing only where the size and style of the machine have made it necessary.

It is light and evenly balanced. The draft is central and saving on your horses.

The No. 10 is made in but one size—with 4½-foot cutter bar. As with our other mowers, it is furnished in the lever-fold pattern unless specifically ordered as a plain-fold.

Johnston No. 14 Big Frame Mower

THERE is a mower that will meet the needs of every farmer no matter how large or heavy the hay crop. It is a big mower for big farming, and yet equally adapted to the requirements of all who desire the best for smaller farming.

The truck is very wide and the wheels very high—34 inches—making the draft as light as possible. By widening the truck we have not sacrificed its strength and durability. We believe this to be the widest framed mower made.

We use a long wood pitman with heavy malleable connections and a wrist pin which is case hardened and polished. This is fitted with a hard oil chamber and makes a perfect bearing that will not heat when properly cared for. There is absolutely no wear on the wrist pin.

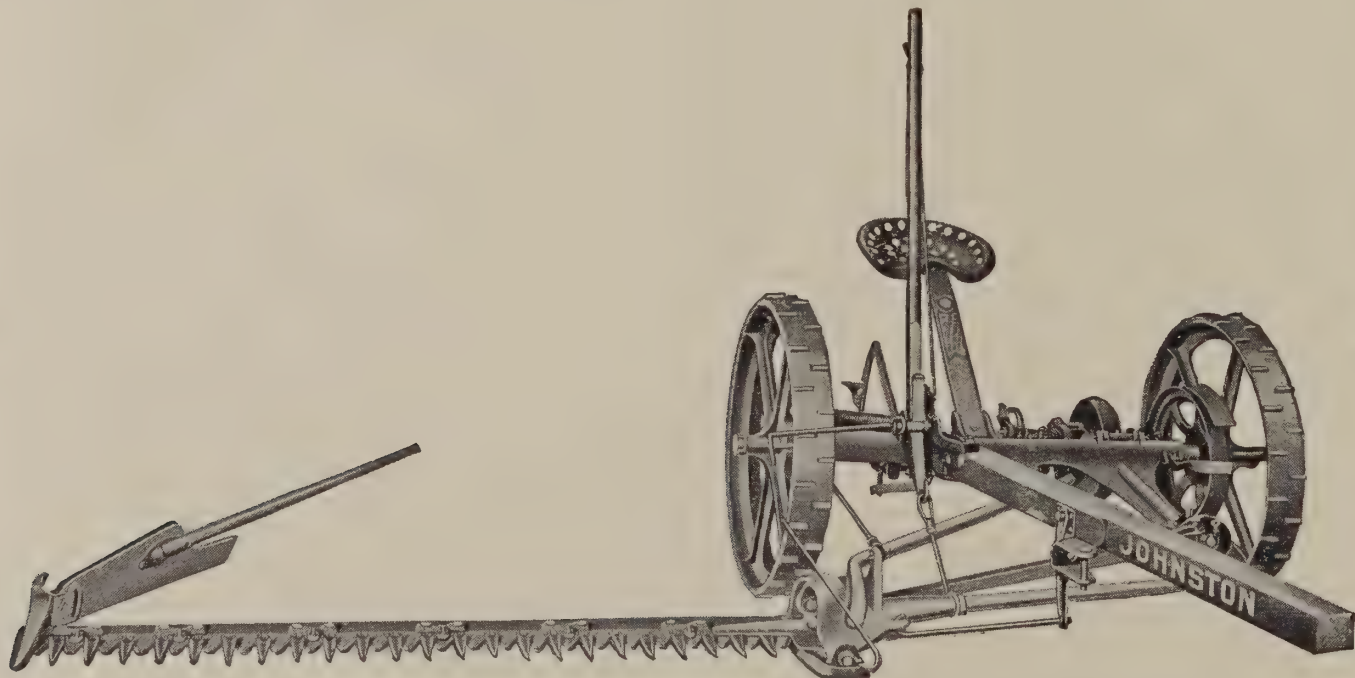
The cutting bar is of steel, and the guards are fitted with serrated steel

plates. The steel push-bar is in one piece, and will not bind when bar is raised.

Whiffletrees draw from the under side of the pole where the draft rod is attached. This brings the pull in a direct line from the push-bar. The whiffletrees' hooks are driven into the ends and will not pull out. Steel chafing plates make eveners and whiffletrees work easily and prevent wear.

Every No. 14 Mower is carefully and thoroughly proved before leaving our factory with the cutter bar and pitman attached. These are in perfect alignment and we know that the No. 14, and, in fact, all Johnston Mowers, are ready to go into the field and do perfect and satisfactory work when they are shipped to fill your order.

The No. 14 is made in three sizes, five, six or seven-foot cuts.



The No. 14 is not simply a long cutter bar on an ordinary frame but is built in proportion. Wide frame mounted on 34-inch broad-faced wheels. A big mower for big farms.

Johnston No. 11 Mower

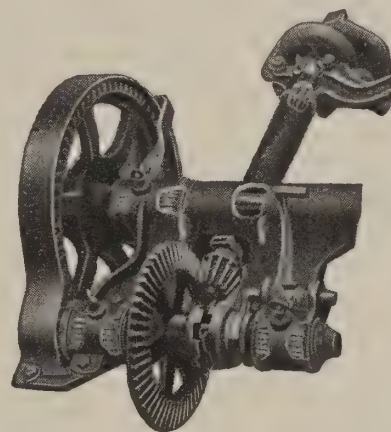
CALLS for a one-horse mower for such a variety of uses, have perfected the Johnston No. 11 so that it is adapted for general use on small farms as well as for parks, lawns, golf courses, etc. It will cut short grass as easily as tall grass.

In general it is constructed along the same lines as the other Johnston Mowers. It is light and compact. Built to give years of service. The gearing is placed at the rear of the main axle. Has horizontal crank shaft with separate boxes (brass in front), long wood pitman with direct and easy motion.

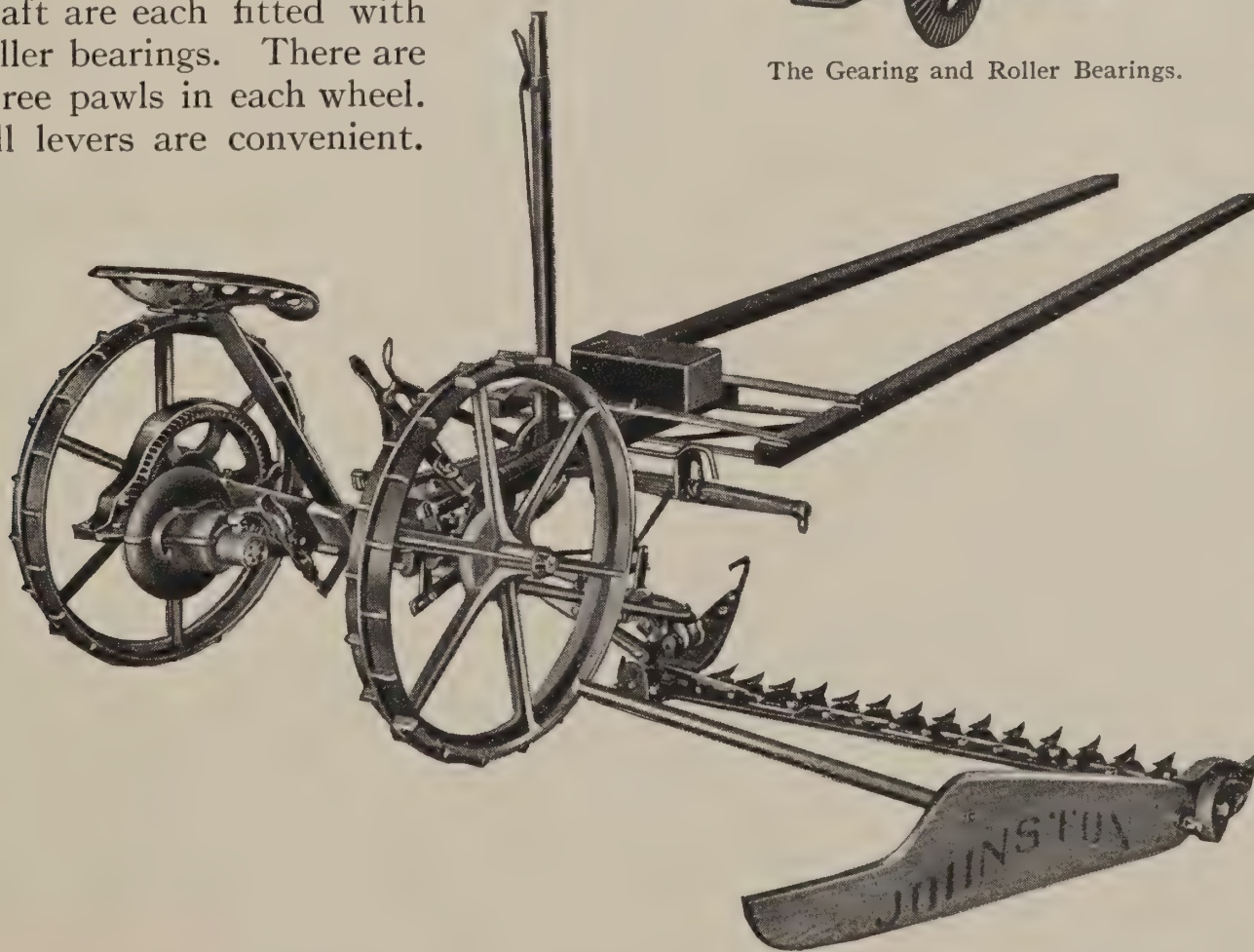
The main axle and bevel wheel shaft are each fitted with roller bearings. There are three pawls in each wheel. All levers are convenient.

The lower bevel-gear shield is detachable, as is the crank wheel shield.

The singletree or whiffletree draws from under side of stub tongue. You will find this machine of very light draft. The machine is furnished with wheels with or without lugs. It is especially adapted for close cutting. It is made in 3½-foot and 4-foot cuts.



The Gearing and Roller Bearings.



This No. 11 one-horse Mower is the outgrowth of a demand for one-horse machines.
Strong and of easy draft.

Johnston Hay Rake



ARAKE that will handle your heavy crop this year just as well as a light crop, is the kind of rake you will add to your farm equipment. Such is the Johnston Hay Rake. Built to meet every condition, it always fulfills its purpose.

Every part, where experience has proved it advisable, is of steel construction. This gives you not only a strong rake, but also one that will give you no trouble from the breaking and wearing of parts.

The main frame and rake-head are steel angles, steel trussed and securely hinged. This will not sag with any necessary weight. The rake-head is perfectly balanced so that the weight of the driver assists in working the machine.

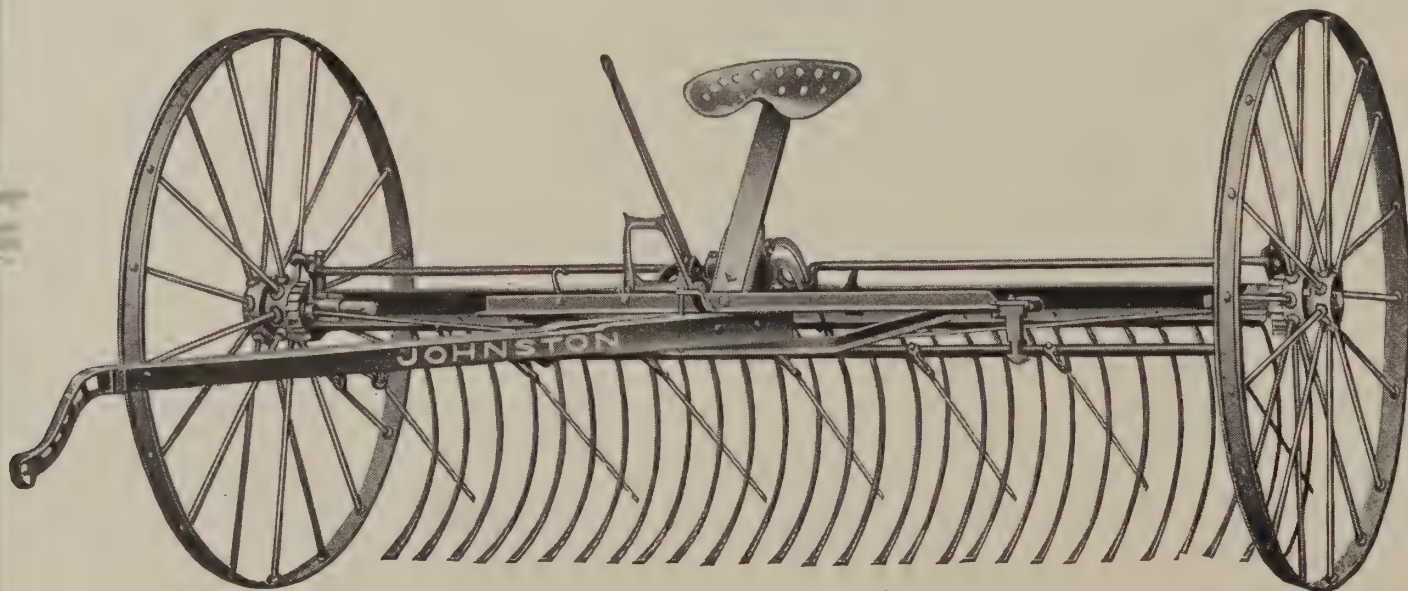
The steel wheels are light, high and very strong, having double hubs, staggered spokes, channel-steel tires with the concave side out to give better traction. The wheels on this

rake will stand up under all conditions. The axle is strong and securely fastened to rake-head.

The steel teeth are long, flat-pointed, oil-tempered and interchangeable. They have free action, hang low, clean the ground without digging and lift high when dumping. They are fastened to the rake-head by detachable tooth-holders. A slight pressure on the cleaner lever permits larger windrows when desired.

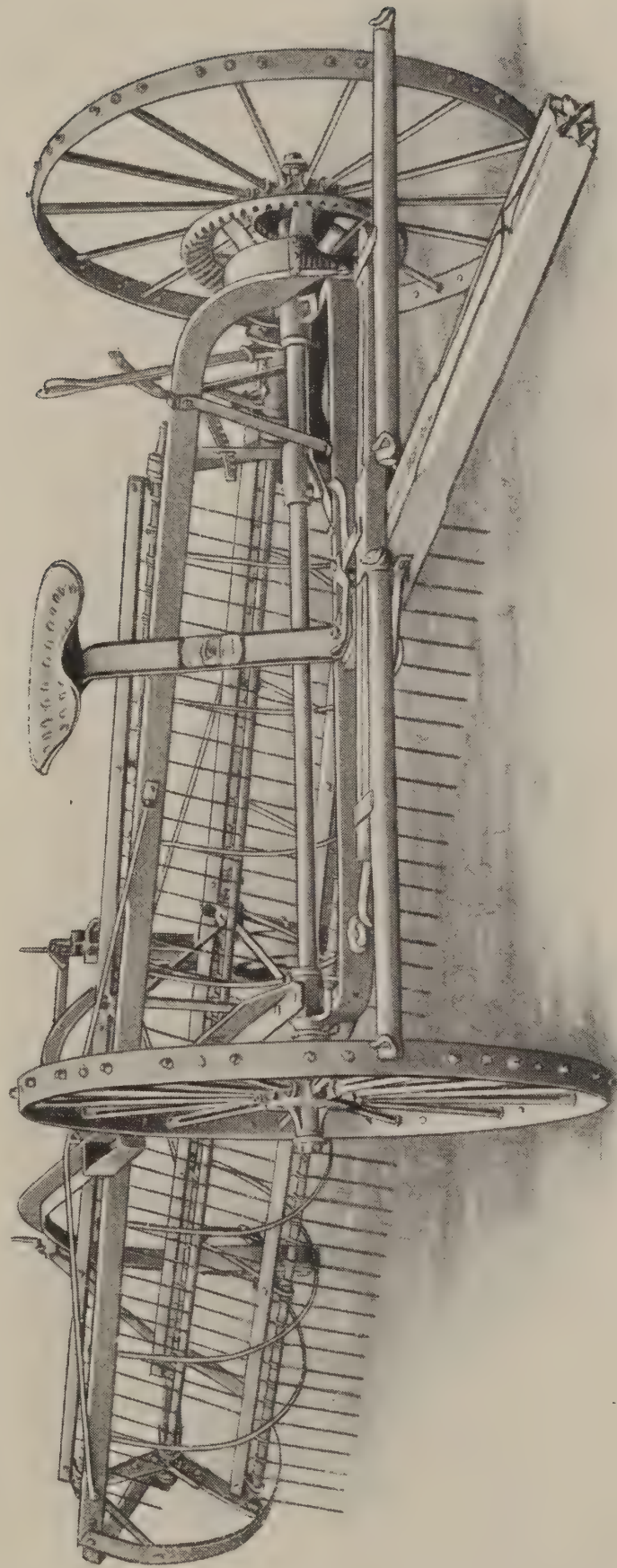
A very simple one-piece dump rod, working from both wheels at once, is used. A hand lever used in connection with a small lock latch, holds the teeth up when going to and from the field. All levers are on the right-hand side, except the foot lever for the cleaners. An adjustable ratchet plate regulates the tripping for slow or fast walking horses.

The Johnston Rake is made in sizes ranging from eight feet with twenty-four teeth to twelve feet with thirty-two teeth.



The Johnston Hay Rake is built for service. Substantial, yet light and easy running. May be arranged for either one or two horses.

Johnston Combined Rake and Tedder



Farmers who have used the Johnston Combined Rake and Tedder say they "could not farm without it." It is a machine fast coming into universal favor.

Johnston Combined Rake and Tedder

THE Johnston Side Delivery Rake and Tedder has proved its efficiency. Farmers are fast realizing the usefulness of this combined machine and with this realization the sales of the Johnston are increasing.

The frame is of angle steel—strong and durable. It is well trussed.

The main wheels are high, and have wide tires and substantial malleable hubs. The driving power is from both wheels which have traction speeds. This positively prevents slipping in heavy crops.

The rear frame is carried on two castor wheels. These are easily adjusted to carry the frame at any desired height. A spring coil on the castors takes up the jar on rough ground.

You will find the gears strong and well protected from dirt, trash and the hay which might clog and break the machine.

The gearing is very simple. But one lever is used to put the machine in operation either as a rake or tedder.

The center notch is neutral. By throwing lever forward machine is put into gear for raking; by throwing lever backward it is put into gear, at a higher speed, for tedding.

Angle of the teeth is easily adjusted by the driver. Teeth are of steel and are made flexible by means of a coil in each tooth. This prevents breakage as they either spring back singly or together. There is no tendency for the teeth to carry the hay back because they draw straight out of the hay. This does away with a very objectionable feature of many side delivery rakes.

The motion of the teeth is steady and positive—they rake the hay and do not throw it. As a tedder its motion is that of the ordinary tedder—thoroughly stirring it and leaving it in the best possible condition for rapid curing.

Farmers growing large crops of beans have found the Johnston as equally indispensable in the bean field as in the hay field. It is made in two sizes, 9½ and 10½ feet.



Johnston Hay Tedder

MANY a cutting of hay has been saved because of a Hay Tedder. Many a crop of hay has been made more valuable, as to its feeding qualities, because of a Hay Tedder. The Johnston has done its part toward this betterment of hay because it is built strong, durable and to meet every requirement.

The main frame consists of two sections which are securely hinged and pivoted at the axle. The front section is steel angle, the rear section steel angle and steel pipe, which, together with brackets, makes a very rigid and strong support for the forks and gearing.

The wheels on the Johnston are strong and will last the life of the Tedder. They are of steel and have double hubs, staggered spokes and wide channel-steel tires, concave side out. Three sets of roller bearings in the main axle help to reduce the draft.

The forks are driven from the center by steel Locke Belt Chain. Power applied from both wheels at once gives even draft. The chain is protected by steel shield.

Three-tine forks are used on both the six and eight-fork tedders. These are spring-tempered and set in one-piece steel. A spring trip enables the forks to meet obstructions without breaking. No two forks strike the ground at the same time, and yet none of the hay is left untended because of the rapid motion of the forks. Outside forks stir the hay that the wheels have passed over.

The fork crank boxes are made in two parts, securely fastened to the frame. The tilting lever controls the height at which the forks work. A spring in front carries the weight.

The Johnston Tedder can be used with either one or two horses as each machine is furnished with combination pole and thills. No trouble to make the change from one to the other.

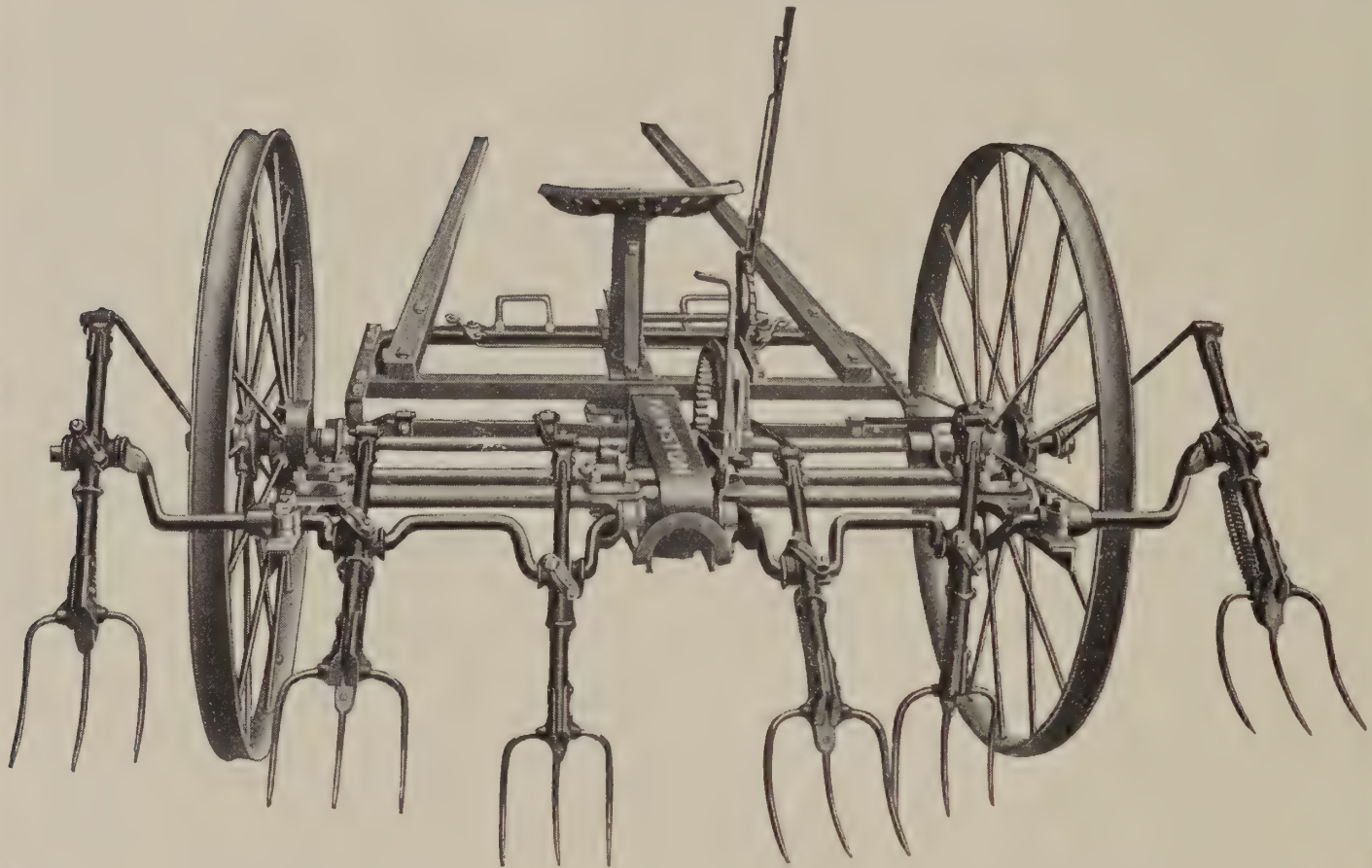


Certainly! Buy a Johnston!

Certainly! Buy a Johnston!

Certainly! Buy a Johnston!

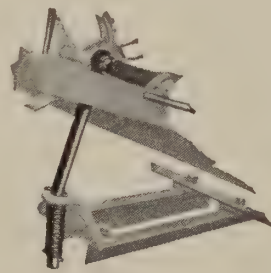
Johnston Hay Tedder



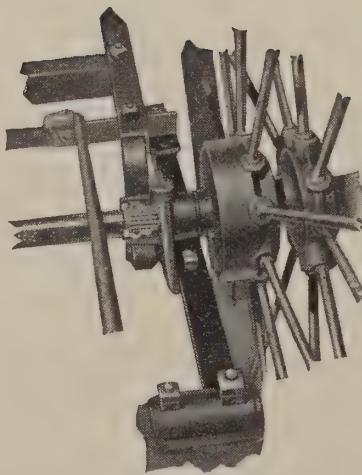
The Johnston Three-tine Tedder has added many dollars of value to many hay crops.
May be arranged for either one or two horses.



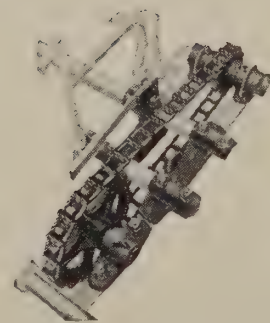
Fork Spring Trip which enables it to easily spring over any field obstruction.



Tilting Spring.



Wheel Hub, section of Frame with Pivot, and Roller Bearings.



Steel Locke Belt Chain, Pipe Brackets and Caps.

Certainly! Buy a Johnston!

Certainly! Buy a Johnston!

Certainly! Buy a Johnston!

Massey-Harris Hay Loader



NOTHING need be said about your need of a hay loader to lessen your labor and handle your hay faster and more economically, but much can be said about your need of a Massey-Harris Hay Loader. We are now manufacturing this hay loader in our own factory. It has long been on the market and its merits have won for it a universal success. It is very simple and easily operated—just hitch it to the wagon and drive ahead. It is intended to load from the windrow and we have yet to learn where it has failed to load windrows of hay, alfalfa or beans, regardless of their size or heft of crop.

The frame is made of seasoned hardwood, held together by steel brackets. This makes a light yet very strong frame meeting every requirement. The wheels are high, having wide tires and substantial malleable hubs. Both are drivers.

We show a view of the gathering drum. There are sixty malleable teeth arranged on six roller bars. These are so controlled that the teeth enter the hay in the same manner as the tines of a pitchfork, holding it securely until it is taken up by the carrier. This action of the teeth is especially advantageous in loading alfalfa as it will not knock off the tender and valuable leaves.

Each roller has steel springs at both ends to relieve the jar when an obstruction is encountered, and also to allow for an unusually large volume of hay.

The elevating carrier consists of two steel chains to which the carrying slats are bolted and a number of

ropes which pass through the slats. The steady and positive motion of this simply constructed carrier insures the carrying of the hay upward evenly and continuously. It is delivered well on to the load so it can be easily placed as desired.

There is absolutely no beating or threshing of the hay because it is at all stages handled as gently as when loaded by hand. An effective wind-break prevents the hay being blown off while passing up the load. A crank on each side is easily operated and regulates the tension of the carrier.

The fore-carriage is substantially built and with it the loader is much more convenient to handle. The fore-carriage takes all the forward weight of the loader so that it can be easily attached; the loader follows the wagon better and can be more easily moved about. The axle on the fore-carriage is so pivoted that either wheel may pass over uneven ground without straining the machine or hindering its operation.



Sectional view of gathering drum.

Massey-Harris Hay Loader



A loader simply constructed, light of draft and efficient.

Johnston Disc Harrow

REVERSIBLE AND ADJUSTABLE

THERE is a machine you can use in the orchard, orange grove, vineyard, cotton field or for general discing.

Its reversible feature practically gives you two implements in one. The gangs are interchangeable in their position on the frame. This enables you to throw the soil to or from the roots, as you may desire.

It is also adjustable. You can cut to any depth, in the middle or at the ends, by means of gang hinges. The gangs are easily adjusted, separately, to any angle, thus regulating the amount of dirt thrown.

This harrow is adapted to this kind of work much better than a plow. The Johnston cultivates all the ground and gets the soil just where you want it. It works equally as well on the side hill as on the level.

The discs are made of steel and will not nick. They will not turn because they are held fast by a square arbor bolt.

The steel frame is in one piece. Strong arches or yokes support the gangs. Separate bearing-boxes take up the friction. We furnish, as an extra attachment, a steel extension frame. With this extension the operator is able to cultivate under the trees, close to the trunks, and the horses do not interfere with the branches. This extension will save many times its price.

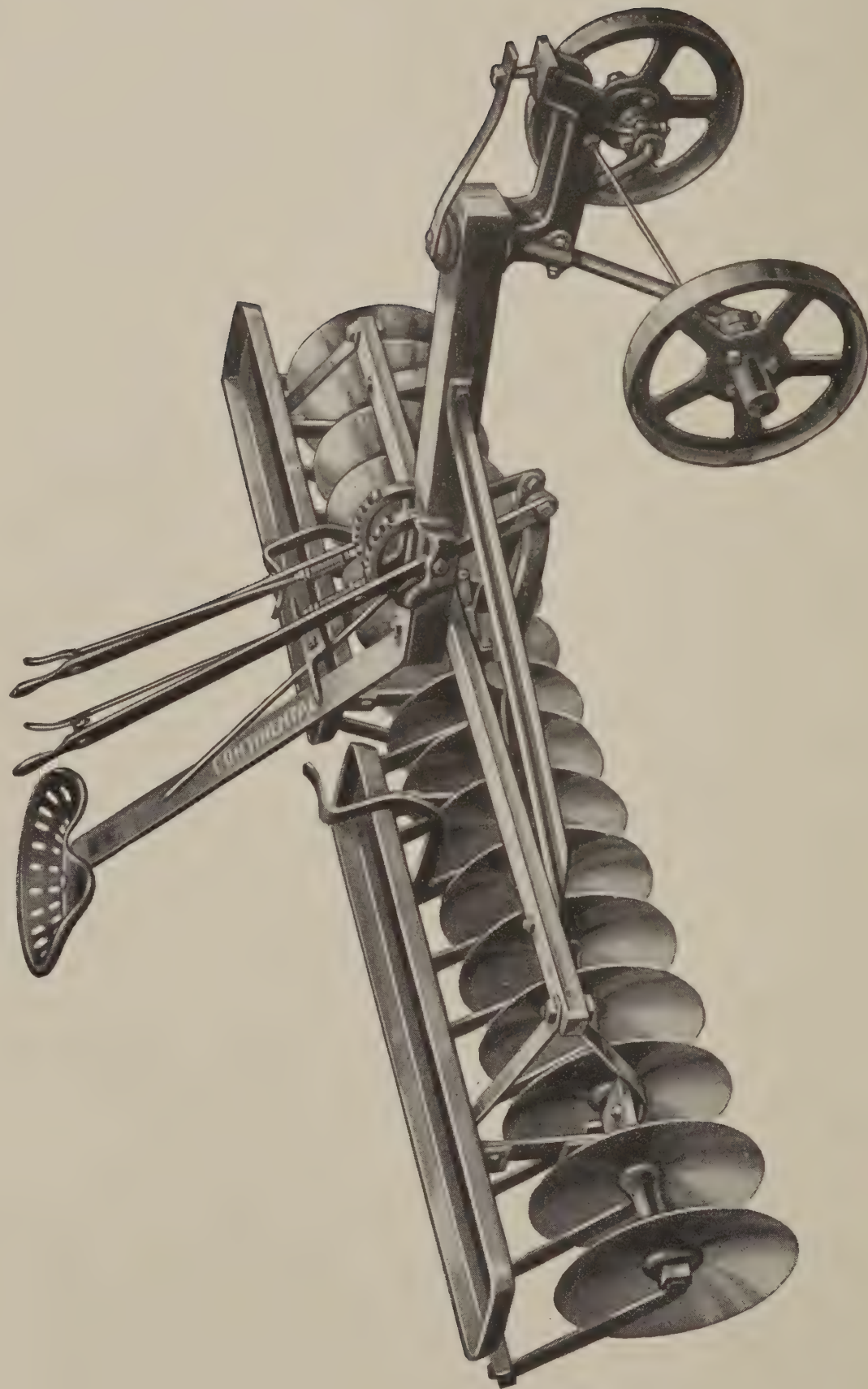


Showing Discs set for throwing the soil outward.



Showing the wide Extension Frame attached to regular Diamond Frame.

Johnston Out Throw Disc Harrow



The popularity of the Johnston Harrow with Tongue Truck has proven its efficiency in the field.

Johnston Out Throw Disc Harrow

PROPER preparation of the soil is commanding more attention every year. Thorough discing has proven one method of properly preparing the seed bed.

The Johnston Out Throw Disc Harrow is one that has been made to perform this function in the most satisfactory manner. It is not only made strong and durable—the first essentials to any implement—but it is easy to handle and draft is exceptionally light.

Tubular steel cross-bar and steel frames are used. Small thimbles prevent bar bolts from cutting out. The discs are of the very best steel, very tough and hard to nick. The standards consist of five sections, any one of which can be removed without taking the gangs apart.

End pressure is taken care of by convex center bumpers for each gang. They roll against each other, revolving in the direction in which the soil is turned. No other method will relieve the end pressure effectively. The Johnston has wood block bearings for the draft standards. They take all the pressure from the standard thimbles and reduce the draft to a minimum. The block is adjustable

to take up the wear and the bearing is dust-proof. Rose steel blade scrapers, operated by automatic foot levers in front, and pressed steel weight boxes are used. Each gang has a shifter lever to control cutting angle.

For two or four horses we furnish an ordinary pole. For three horses we furnish an off-set or set-over pole. This brings the center horse directly in line of draft.

The Johnston Tongue Truck has met with much favor. This is furnished when ordered. It is built strong and durable. It has a solid axle $1\frac{1}{8}$ inches in diameter. This axle is so formed that it will clear all stubble and stalks. The wheels are 14 inches in diameter and have detachable dust-proof boxes and chambers which permit bearings to run in oil. These are cheaply replaced when necessary.

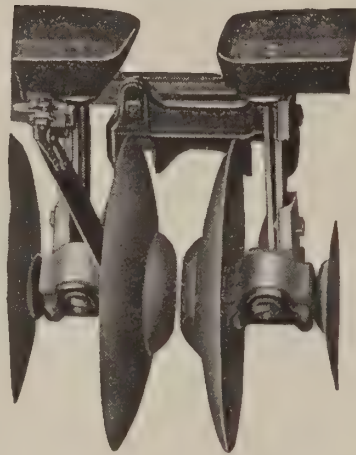
The truck is attached to the stub pole by a large king bolt, which provides for the rise and fall of the harrow and also allows a large radius of independent action of the wheel in all kinds and conditions of soil. With the Johnston Harrow and Johnston Tongue Truck there is no jarring, jerking or whipping about on rough, uneven ground.



Johnston Out Throw Disc Harrow



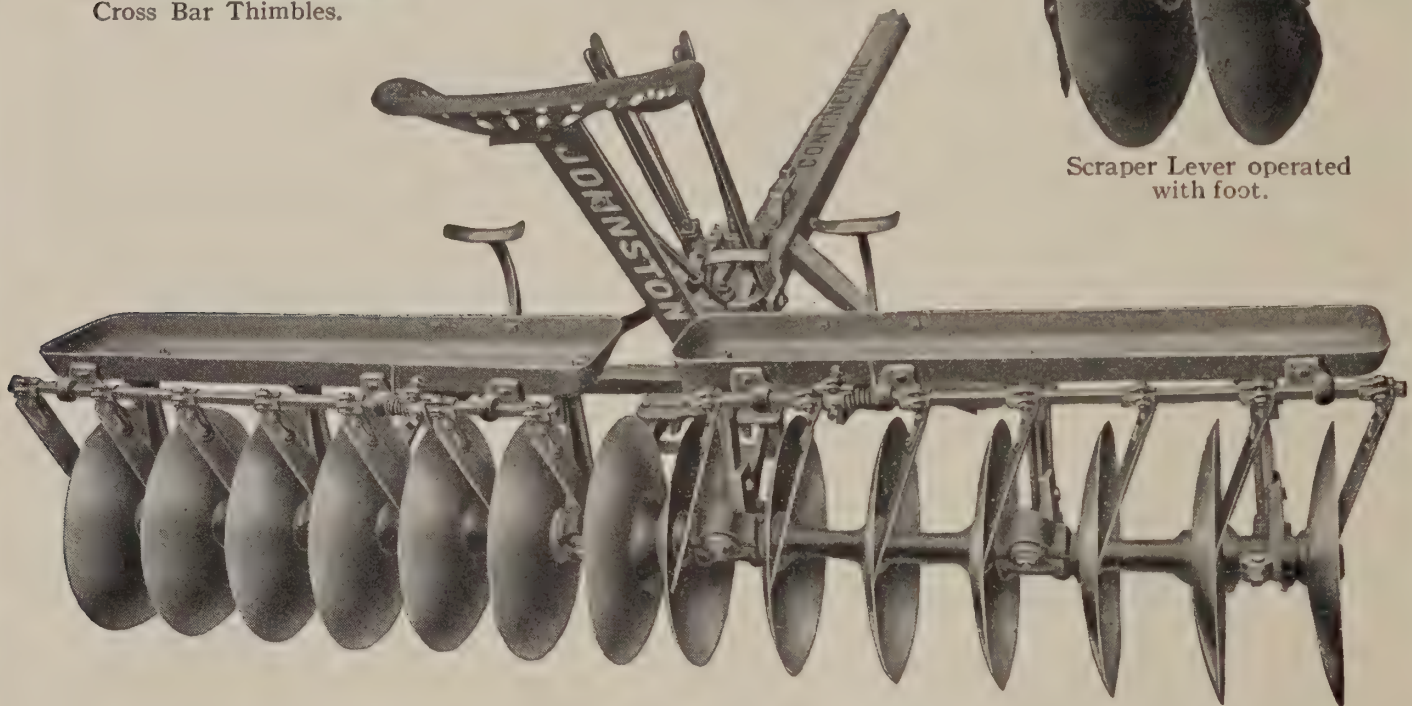
Cross Bar Thimbles.



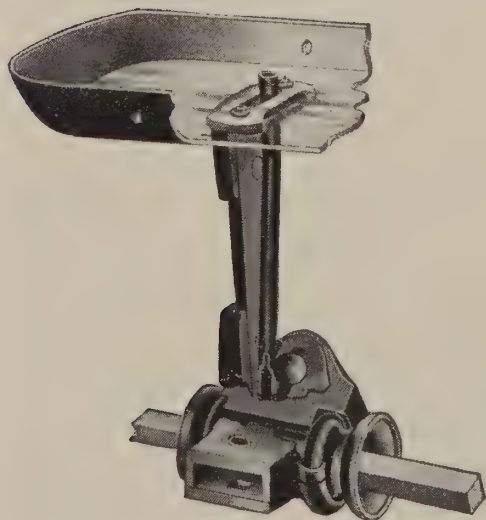
Convex Center Bumpers.



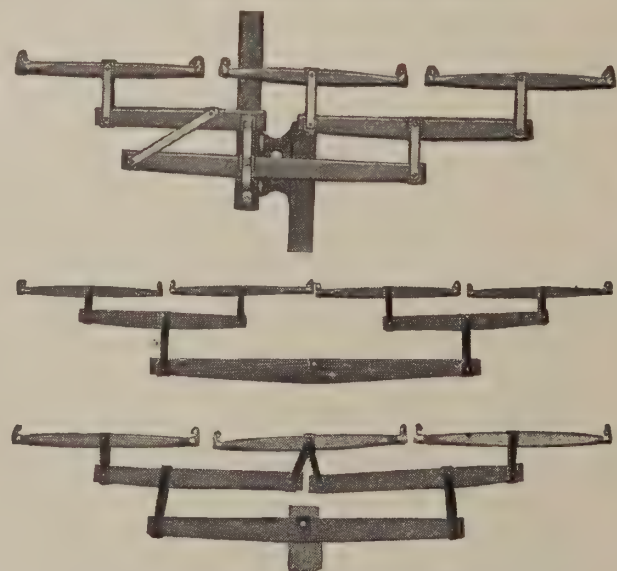
Scraper Lever operated with foot.



A Harrow with a straight pole is preferred by many, and the Johnston has always given satisfaction.



Wood Bearing Draft Standard.



Showing special Hitch for three horses with Set-over Pole, and special 4-horse Hitch and 3-horse Hitch for Tongue Truck.

Johnston Spring and Spike Tooth Harrows



YOU are so well acquainted with the uses and advantages of both of these styles of harrows that it is hardly necessary to mention their importance in your farm equipment. It is sufficient to state a few of the features that make the Johnston Harrows superior to the many others.

The Johnston Spring Tooth Harrow is of steel and malleable construction. The frame is of steel and to it are attached steel runner plates bolted on the under side to take the wear. They are easily replaced when worn.

The teeth are of the best oil-tempered spring steel. No two teeth trail. Convenient levers permit easy adjustment.

The spring tooth harrow is made in two sizes—15 and 17-tooth. However, we also furnish a six-tooth center section which can easily be used in connection with either of these sizes. By using the six-tooth section you have a 21 or 23-tooth harrow.

The Spike Tooth Harrow is known as the "U" Bar Spike Harrow with closed end. These end bars are securely braced. The teeth are

diamond shape or square, as ordered, forged and tempered. They are upset on the ends to prevent slipping through the holders. They are attached to the bars with a forged steel clamp.

The position of the teeth is controlled by levers and can easily be changed to any angle, forward or backward. Thus the harrow can be instantly cleared of any trash or stubble without stopping the team.

Each section is fitted with four-runner-teeth which enable the harrow to be easily transported to and from the field.

We make the spike tooth harrows in six sizes—50 and 60 teeth for the two-section harrow; 75 and 90 teeth for the three-section harrow and 100 and 120 teeth for the four-section harrow.

We also have the Perry Wood Frame Harrow made in four sizes—16, 18, 20 and 22 teeth. This is commonly known as the "A" or "butterfly" frame. It is inexpensive, and its two sections, hinged at three points, make it very flexible to the lay of the land.

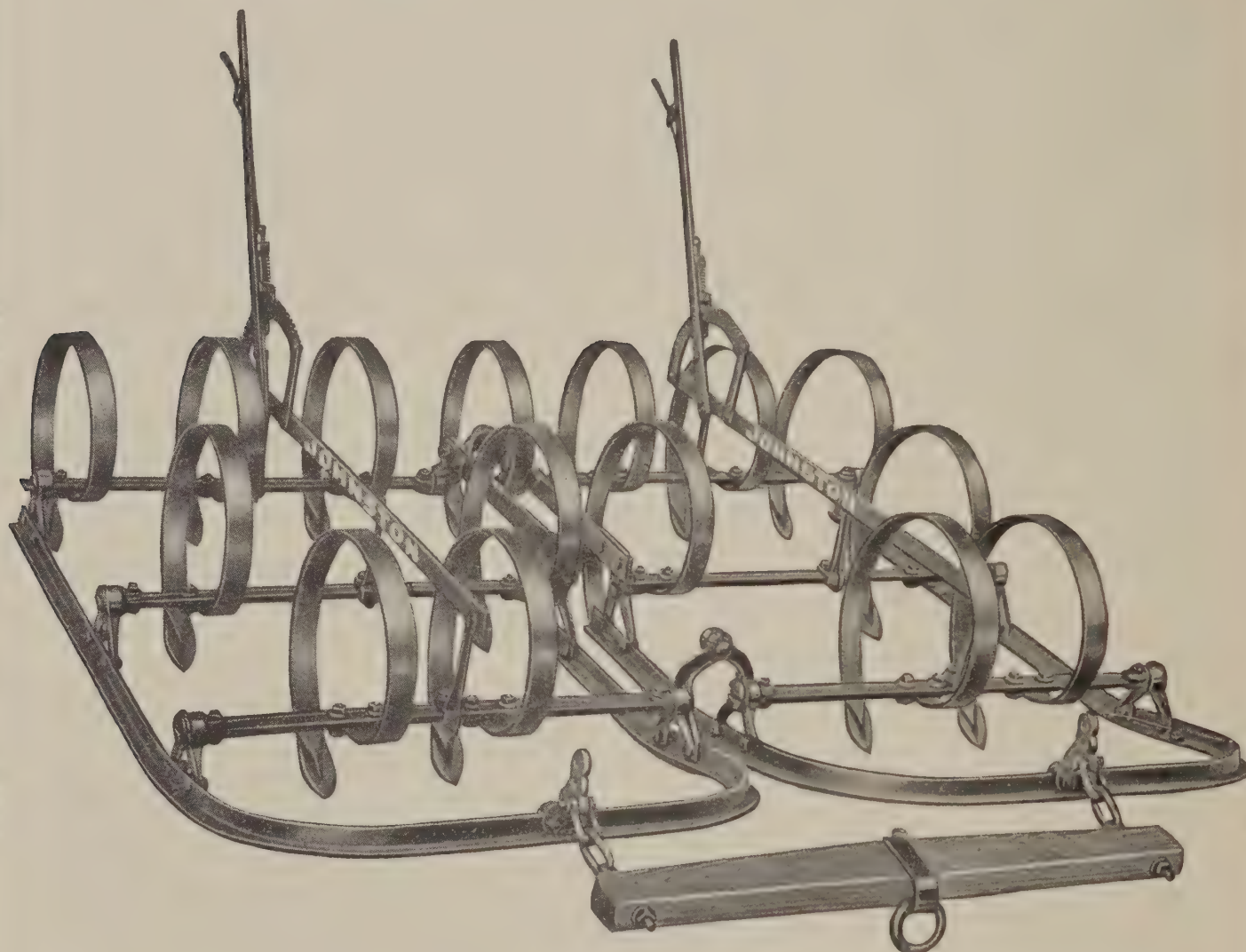


"Certainly! Buy a Johnston"

"Certainly! Buy a Johnston"

"Certainly! Buy a Johnston"

Johnston Spring and Spike Tooth Harrows



The Spring Tooth Harrow that many farmers cannot do without.
Built exceptionally strong and has always given satisfaction.



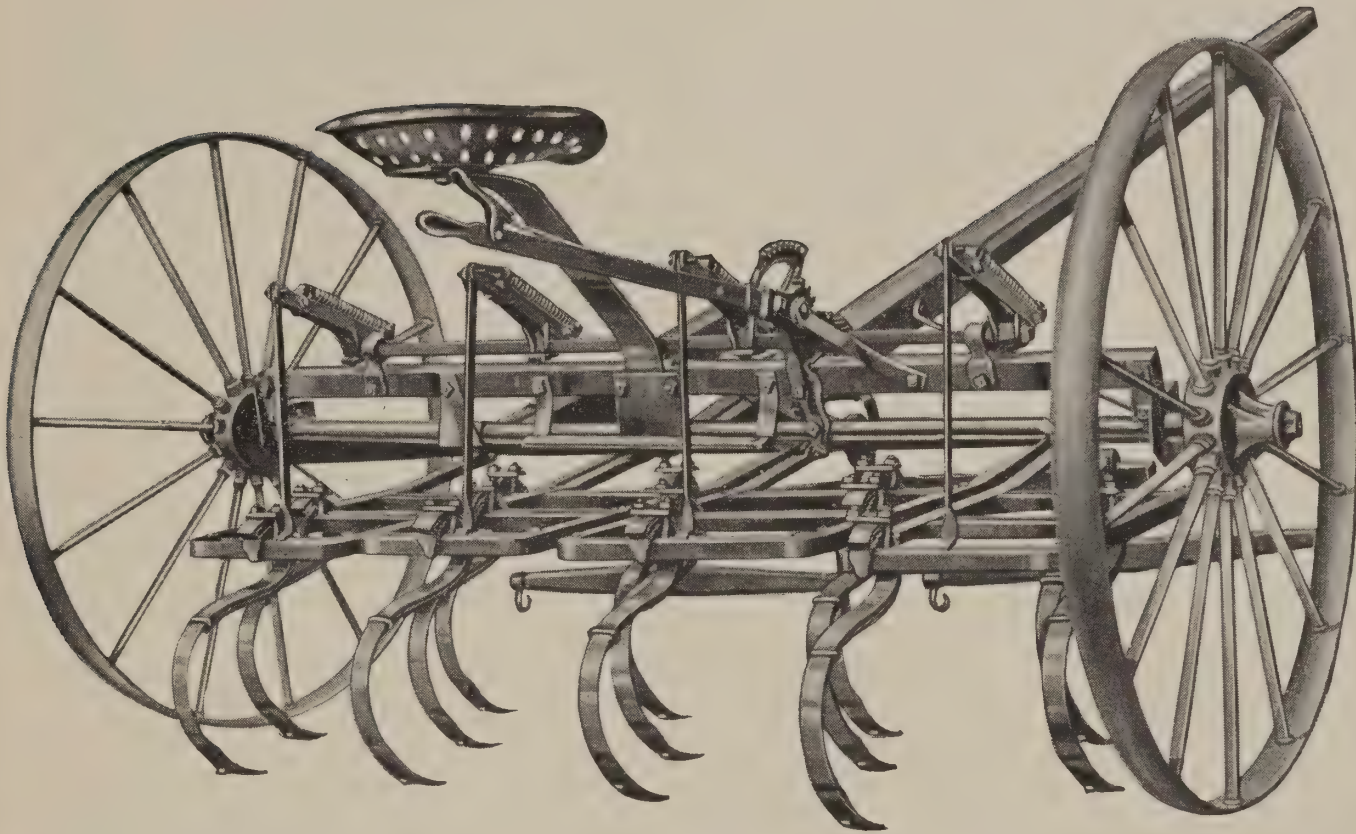
As a Smoothing Harrow the Johnston Spike Tooth will meet your every need.
Made in sections of 25 or 30 teeth to a section.

"Certainly! Buy a Johnston"

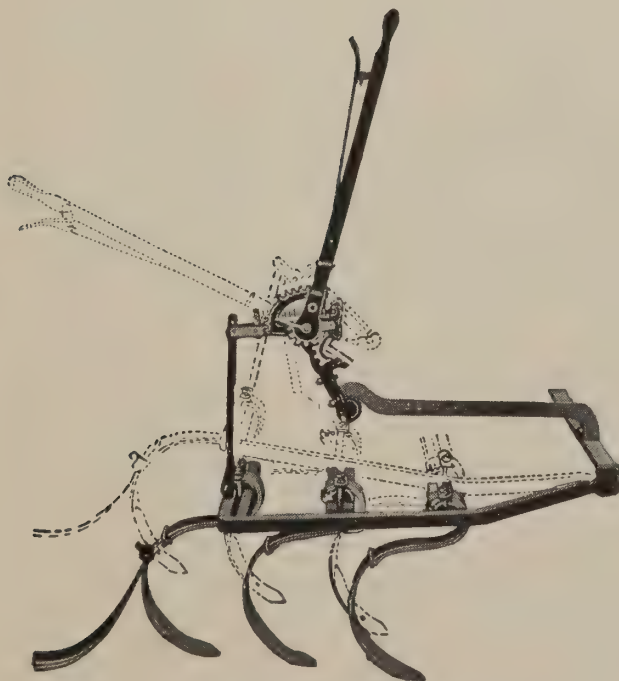
"Certainly! Buy a Johnston"

"Certainly! Buy a Johnston"

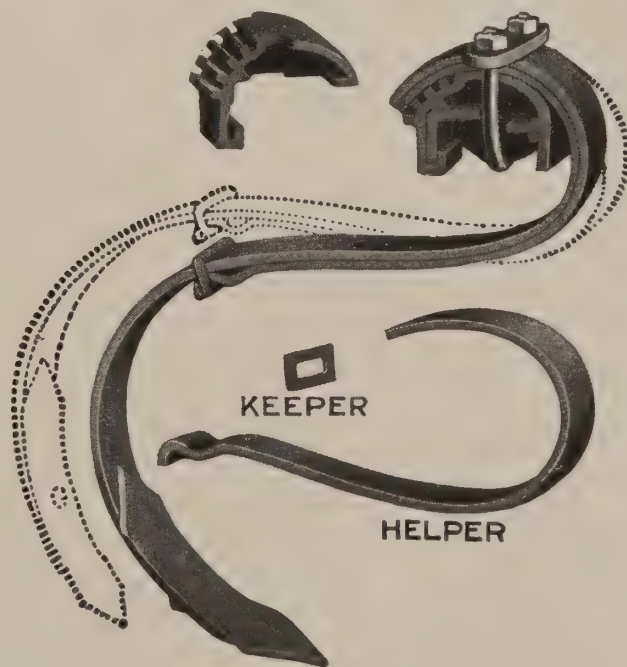
Massey-Harris No. 7 Cultivator



An implement to aid a more thorough preparation of the soil. Its advantages are many. It is by no means an experiment. It has proven its worth and given satisfaction.



Showing range of adjustment of the spring teeth.



View of spring tooth showing detail of the keeper and helper.

Massey-Harris No. 7 Cultivator

GOOD farming demands that the land be kept free from weeds, also in many localities it is necessary to conserve every particle of moisture in order to grow satisfactory crops.

The Massey-Harris Cultivator accomplishes both in a manner which leaves nothing to be desired—cleaning out the most obstinate weed pests and forming a mulch of loose soil which prevents loss of moisture by evaporation. Farms have been cleared of thistle, quack grass, etc., after having been given up in despair by their owners, by the systematic use of these Cultivators.

Much of their success is due to the method of applying the spring pressure—the pressure remaining the same when passing knolls or furrows and insuring uniformity in the depth of cultivation.

Ample strength to withstand the severest strains when working in hard and rough ground is secured by making the frame and sections of high carbon angle steel, thoroughly braced and trussed. Each section is built from a single piece of angle steel with angle steel cross bars securely riveted in place.

A steel axle of good size extends the entire width of the Cultivator and greatly strengthens the frame.

The wheels are extra strong, are of large diameter and have broad face, contributing much to the easy running of the machine. Having a long bearing on the axle, the wheels have no tendency to “wobble” or spread.

The angle or pitch of the teeth with reference to the ground can be easily and quickly adjusted as conditions may require by means of the adjustable connection to the cross bars. They may also be moved sideways and set at any point on the cross bars. The teeth are of tempered spring steel and each is re-inforced by a spring steel helper which increases the flexibility and prevents breakage when striking a stone or root.

The regular points are reversible, giving double wear.

A single lever conveniently located is used for the sections simultaneously, or for placing any required pressure on the teeth through the medium of the strong coil springs. The lever has a reverse motion as shown in cut, and leverage is ample, so that it is an easy matter to raise the sections or apply whatever pressure is necessary.

The pole is adjustable for different sized horses and can be quickly removed for storing, or changed from the center to one side for using three horses.

An adjustable clevis with four height adjustments is provided, enabling the operator to hitch the team in such manner as to entirely overcome neck weight, also allowing for different sized horses.

Either a two-horse or a three-horse doubletree can be supplied, and the three-horse is so arranged that it can be used as a two-horse when desired.

The seat is re-inforced pressed steel on a tempered steel seat spring which fits into a steel holder or socket.

Three sizes, 10, 13 or 17 teeth.

Johnston "Easy Loader" Spreader



FARMERS are fast realizing not only the money value of barnyard manure, but are also appreciating the convenience with which they are able to get the manure away from the barn by means of a manure spreader. Many farmers maintain no manure pile. They load directly into an "Easy Loader," and draw to the field and spread every time a load is filled.

The Johnston Spreader has so many distinctive features that it is hard to give a short detailed description. As its name signifies it is an easy loader. It is built low—the floor at the front is thirty-four inches and at the rear thirty inches from the ground. Either side lets down, making it very convenient to load.

The side sills of the main frame are of channel steel and will not sag or twist. Cross sills are of 3 x 5 oak. The frame is further strengthened by a T-steel bar which also forms a track for the center chain.

The Johnston Spreader has three floor chains, one in the center and one at each side of the apron. This method of moving the floor insures an even and easy motion toward the beaters.

The floor is composed of narrow lags or slats. Each lag is riveted to a malleable link. These are so fitted as to form a tight, yet flexible bottom. The lags are detachable. No rivets to cut, no tools necessary.

By means of an automatic floor the feed stops and the apron is returned to its original position as soon as the

load is completely spread and the head-board is next the beater.

The feature of the head-board following the manure is especially advantageous. It insures a spreading of all the manure and prevents it being kicked back on the empty apron.

By a lever within convenient reach of the driver the amount of manure distributed is regulated. The Johnston is equipped with a worm feed which prevents overhauling and racing of the bottom, regardless of the lay of the land.

The driving power of the beater is by means of a chain running over beater shaft and a large sprocket on main axle.

Another feature is, as the tail-board is always down except when spreading, there is nothing to prevent easy loading over the rear end. This is only forty-eight inches from the ground. There is no high pulverizing rake to pitch over.

As the operator throws the spreader into gear by means of a lever, the end gate or tail-board is raised by the same operation. It also drops back into place as the machine is thrown out of gear.

Wheels are furnished in either wood or steel. As the rear axle turns with the wheels, roller bearings are incased in heavy roller boxes which are attached to the sills.

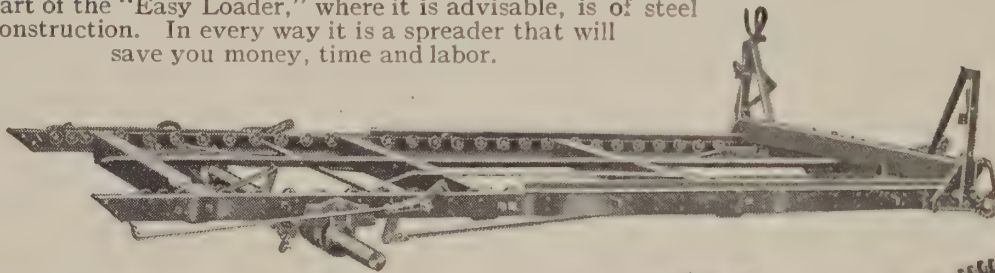
The Johnston Easy Loader Spreader is made in four sizes and is equipped with either a single pole, two or three-horse hitch, or the double pole combination, two or three-horse hitch.

"Certainly! Buy a Johnston" "Certainly! Buy a Johnston" "Certainly! Buy a Johnston"

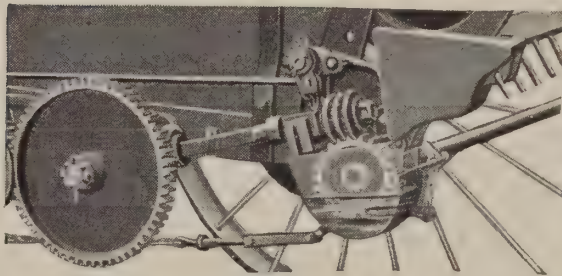
Johnston "Easy Loader" Spreader



Every part of the "Easy Loader," where it is advisable, is of steel construction. In every way it is a spreader that will save you money, time and labor.



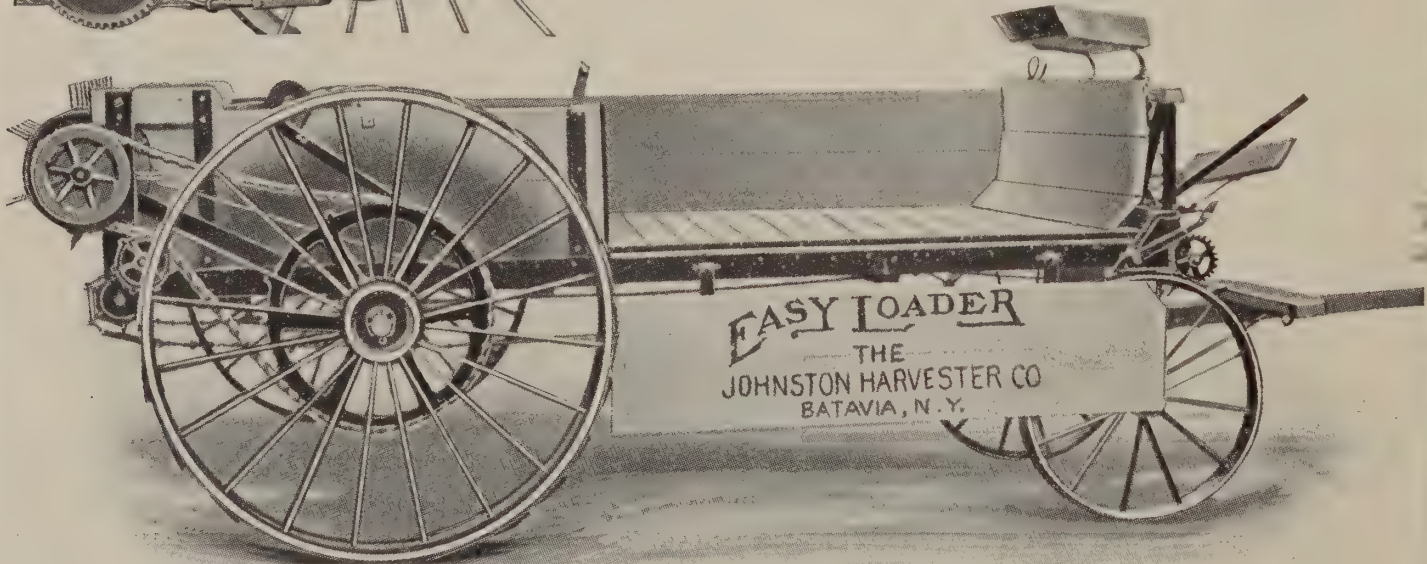
View of the strong, "Easy Loader" main frame.



View showing the oil case which encloses the worm gear.



The simple worm gear that positively prevents racing of the apron.



A most convenient feature is the letting down of either side to permit easy loading.

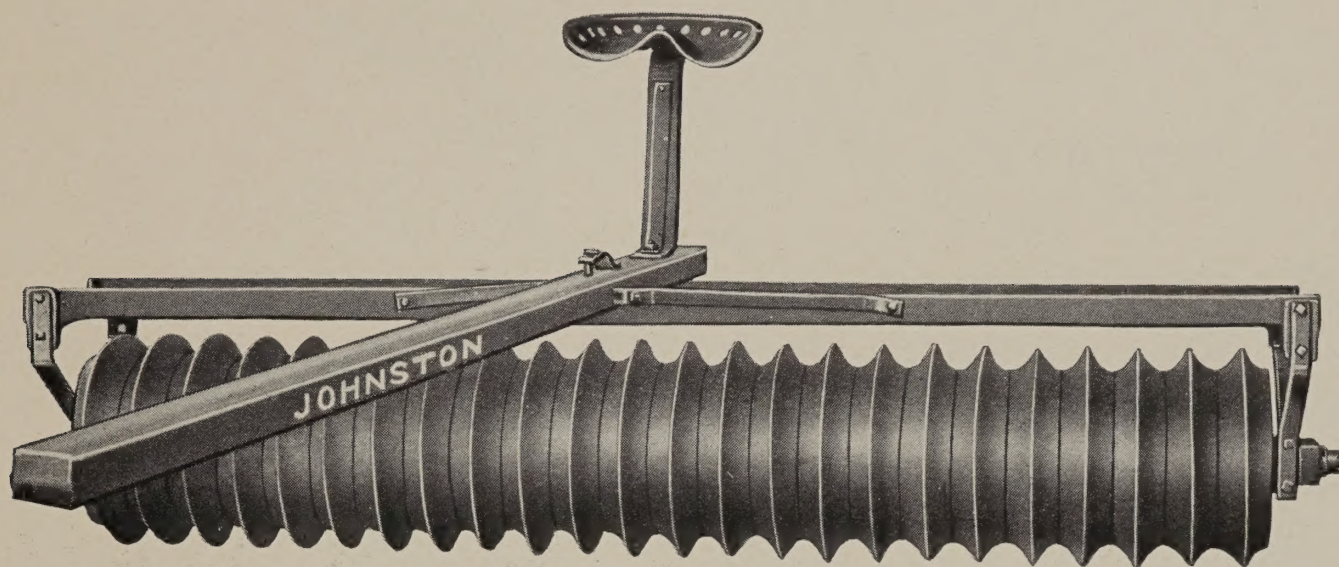
"Certainly! Buy a Johnston" "Certainly! Buy a Johnston" "Certainly! Buy a Johnston"

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Johnston Soil Pulverizer



This machine not only pulverizes the soil but rolls it in the same operation. Proven to be a valuable aid in retaining moisture in the soil.



If you believe that seed will grow better in soil that is mellow and free from lumps than in rough, uneven, dry-surface soil, you know the value of a Johnston Soil Pulverizer.

This implement is a step forward in intensive farming. It rolls, crushes the clods and pulverizes the soil, all in the same operation. It packs the subsoil and leaves the ground fine and mellow. The use of the soil pulverizer helps materially in retaining moisture.

The frame is made of heavy angle steel. Strong and heavy to prevent sagging and to carry weights when desired. The axle is of $1\frac{3}{4}$ -inch machine steel and extends the full length of the implement. Each section is a solid casting, strong and hard to nick.

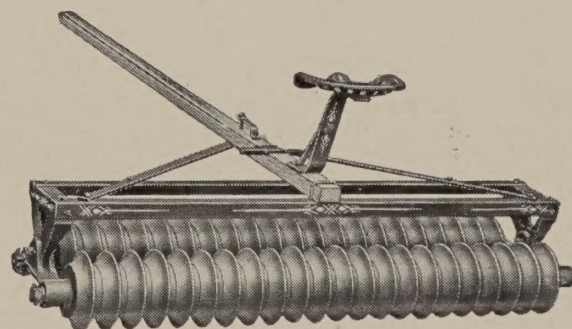
The Johnston Pulverizer is also furnished in the trailer form. The construction conforms in general principles with the single roller form. The discs or sections on the rear gang

are so arranged that they do not trail the path of the front discs. This feature permits a thorough preparation of all the soil at once.

The trailer is attached by heavy hinges running from axle to axle which permit the gangs to rise and fall with the unevenness of the ground. It is easily and quickly removed when desired.

Made in the following sizes:

Width	Sections	No. of Wheels	Size of Wheels
8 ft.	1	24	18 in.
10 "	1	30	18 "
7 "	2	18 front 19 rear	15 " front 12 " rear
8 "	2	21 front 22 rear	15 " front 12 " rear



Rear view of the pulverizer with trailer attached.

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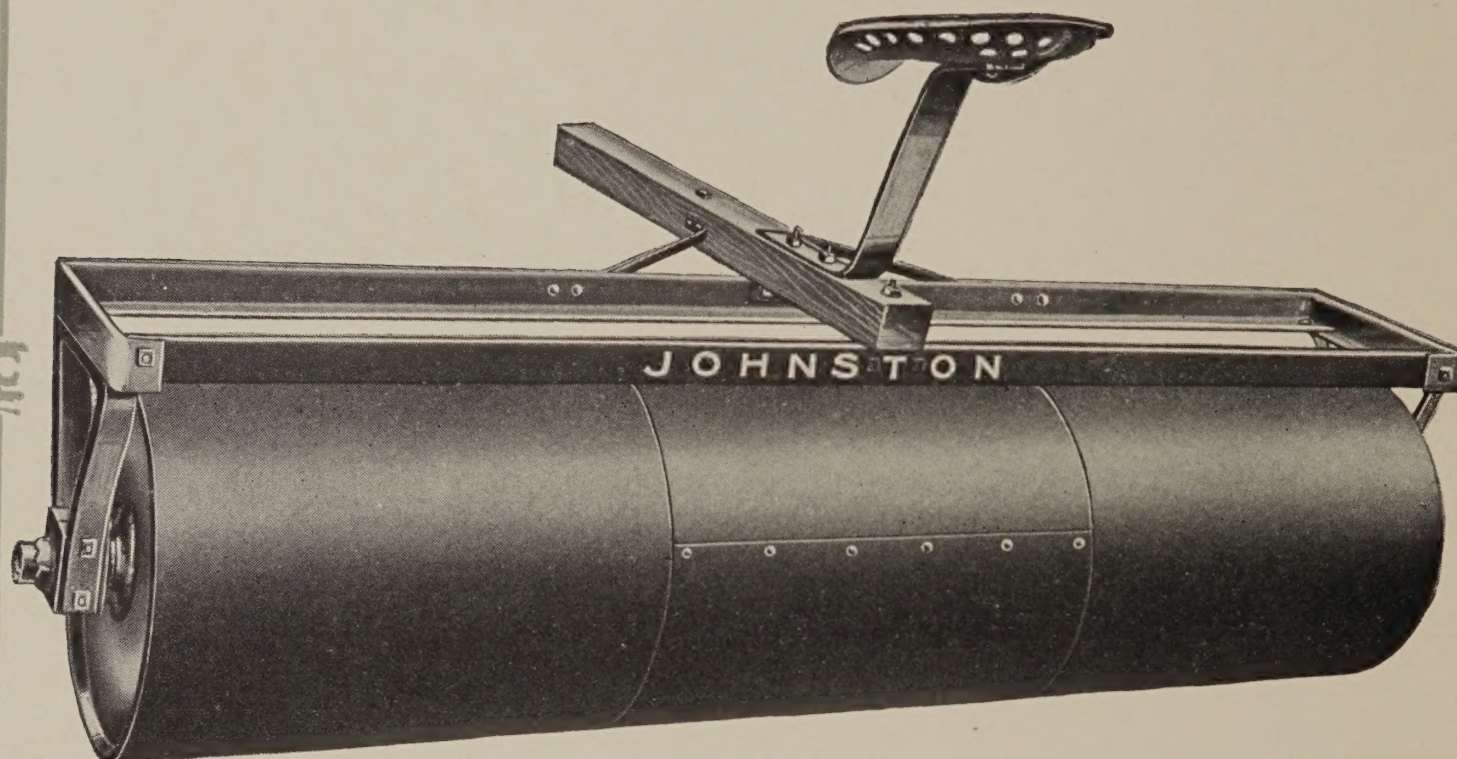
"Certainly! Buy a Johnston"

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Johnston Steel Land Roller



A large, smooth faced roller of good weight. Substantially built for years of hard service.

THERE is a strong, solid, substantial roller, furnished in several sizes of either two or three sections, that will give you long and satisfactory service.

The frame is of angle steel. The axle is of $1\frac{7}{8}$ -inch steel shafting and turns in hard maple boxes carried in steel hangers. It has been demonstrated that wood bearings wear longer and work easier than metal bearings.

To prevent wear on the axle a cast sleeve or collar is placed on the hubs at each end of the drums. The

drums are made of high carbon sheet steel. The ends are closed with solid sheet steel heads, held in place with bolts. No dirt or trash can get into the drums, which turn independently of each other on the axle.

Made in the following sizes:

Sections	Diameter of Drum	Length
2	24 inches	7 or 8 ft.
3	24 "	7, 8 or 9 ft.
2	26 "	8 ft.
3	26 "	8 "

JOHNSTON REPAIRS.—We do not claim that Johnston Machines never need repairs, but by exercising a little care in adjustment and usage you can reduce the expense for repairs to the minimum. We maintain large stocks of repairs for our machines at all our Branch Offices and other Transfer Points, as well as at thousands of our local agencies. It is, therefore, seldom necessary to send to Batavia for repairs, unless you are located nearer our factory than to any other stock of repairs. Thus, quicker and cheaper delivery can be made.

We also wish to emphasize the necessity of using only Johnston repairs, secured only through ourselves or representatives, on Johnston Machines. Our repair parts are made to fit our own machines perfectly, and if repairs are purchased elsewhere there is a strong possibility that they will not fit as they should and consequently the machine will not do perfect and satisfactory work.

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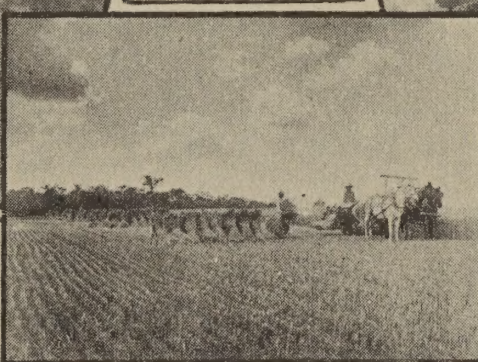
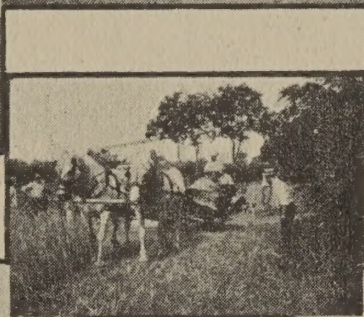
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The JOHNSTON
In the Field.





"Certainly! Buy a Johnston"

